

AMERICAN  
*Cinematographer*  
★ THE MOTION PICTURE CAMERA MAGAZINE ★


LEONARD CLAIRMONTE

25¢  
FOREIGN 35c



NOVEMBER  
1946





# ***For dramatic lighting...* SUPERIOR 2**

A general-purpose negative stock, Du Pont Superior 2 is particularly suitable for dramatic lighting effects. It combines fine grain with high speed. It provides excellent exposure in both highlight and shadow areas. E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware.

*In New York:* Empire State Building

*In Chicago:* 225 N. Wabash Avenue

*In Hollywood:* 6656 Santa Monica Blvd.

**Features:**

- |                          |                              |
|--------------------------|------------------------------|
| 1. Extreme wide latitude | 4. Speed                     |
| 2. Color balance         | 5. Excellent flesh tones     |
| 3. Fine grain            | 6. Uniformity                |
|                          | 7. Retention of latent image |

*(Listen to "Cavalcade of America," Monday evenings on NBC)*

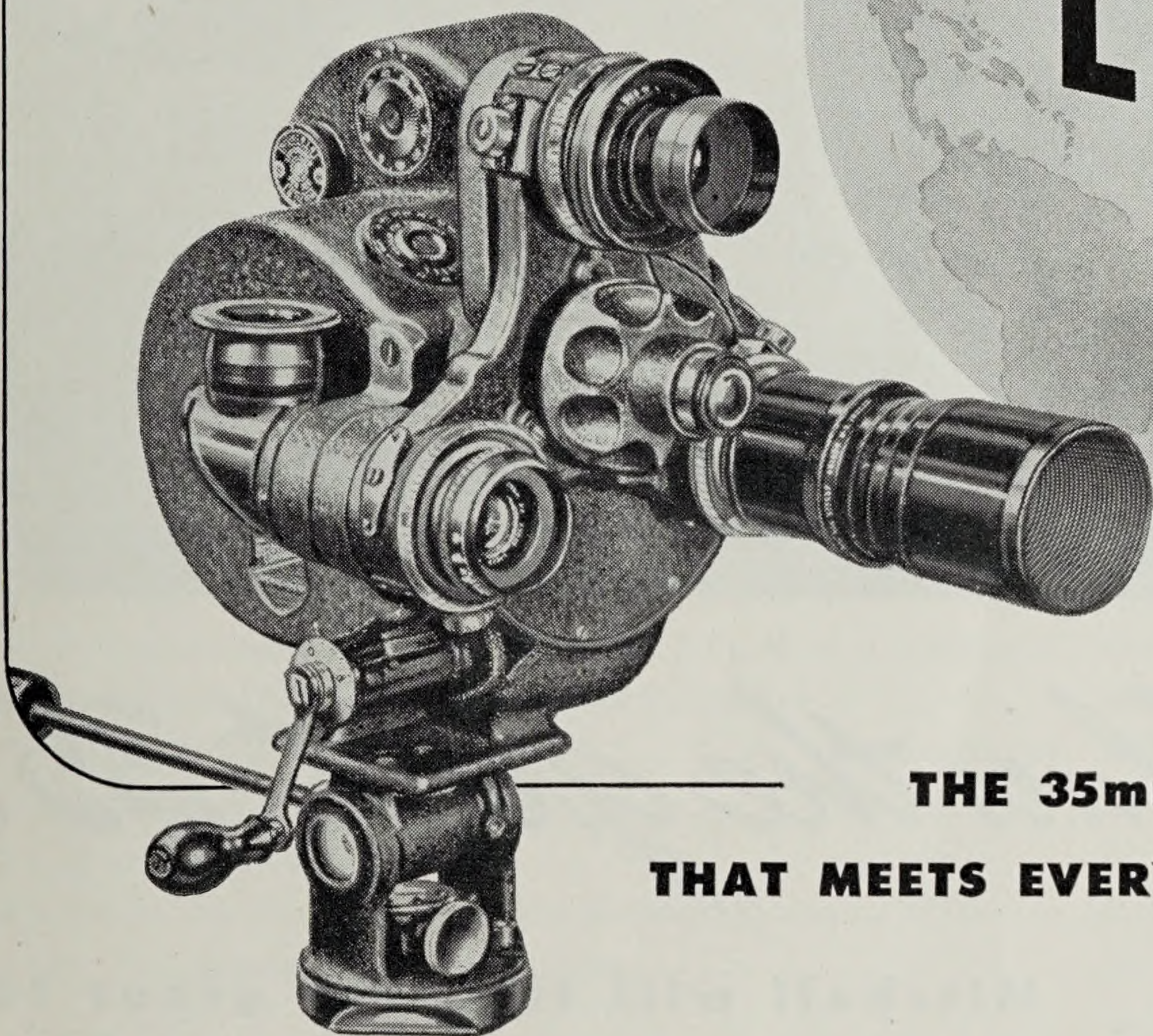
**DU PONT**  
**Motion Picture Film**



BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY



# It's One World for EYEMO



## THE 35mm CAMERA THAT MEETS EVERY INDIVIDUAL NEED

**I**F there's one kind of American equipment that's known the world around, it's Eyemo—the camera that has “seen everything” in every corner of the world.

Before the war, the Bell & Howell Eyemo was considered official equipment for the world's ace newsreel men. During the war, Eyemo went into combat with every branch of our fighting forces. And today Eyemo continues to be the One World's truthful eye—getting the news wherever it happens, getting it fast, getting it right.

It's precision construction proved and re-proved under every possible condition of weather, war, and peace. Eyemo guarantees that *what you see, you get.*

Seven models, with correlated accessories, give you a camera suitable for every field or studio need. Send the coupon today for full details on all models.

Bell & Howell Company, Chicago; New York; Hollywood; Washington, D. C.; London.



OPTI-ONICS—products combining the sciences of OPTics  
electrONics • mechanICS

PRECISION-MADE BY

# Bell & Howell

BELL & HOWELL COMPANY  
7148 McCormick Road, Chicago 45

Please send me information on Bell & Howell Eyemo Cameras and correlated accessories.

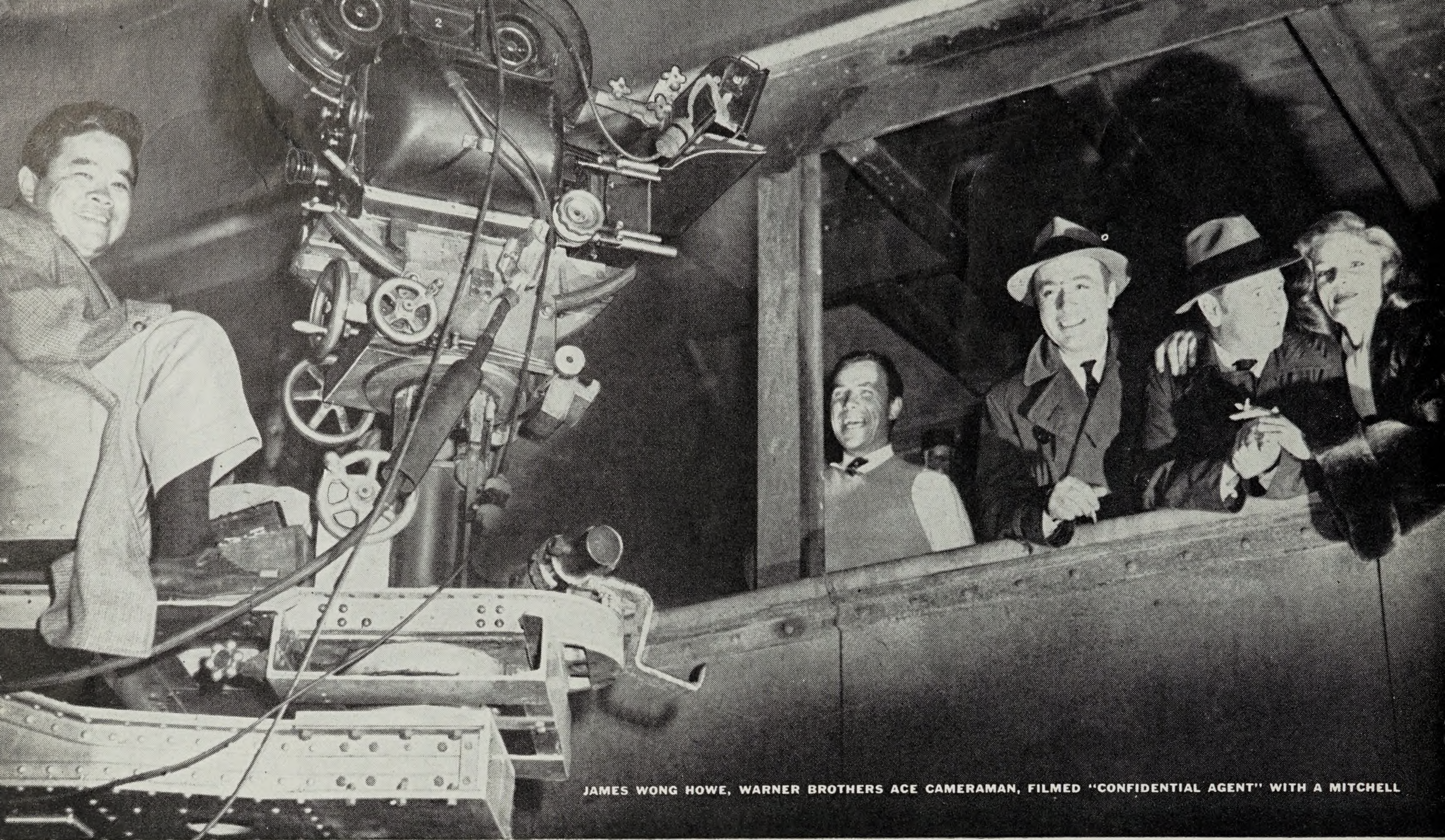
Name.....

Address.....

City..... State..... AC  
11-46

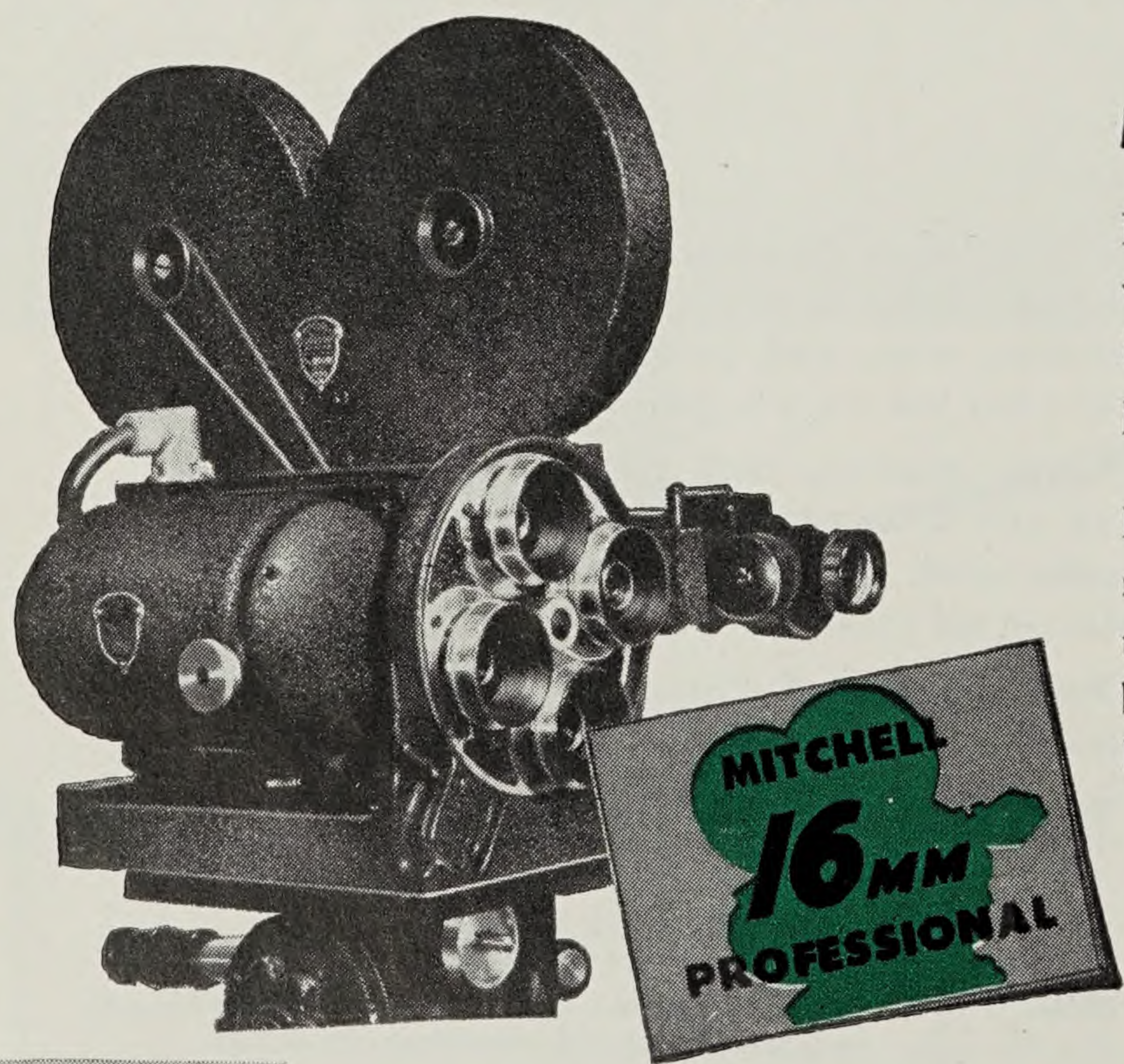
SINCE 1907 THE LARGEST MANUFACTURER OF PROFESSIONAL MOTION PICTURE EQUIPMENT FOR HOLLYWOOD AND THE WORLD





JAMES WONG HOWE, WARNER BROTHERS ACE CAMERAMAN, FILMED "CONFIDENTIAL AGENT" WITH A MITCHELL

# Mitchell films the great 35's



## Mitchell will film the great 16's

Now in full production, the Mitchell 16 mm Professional Camera will soon be in the hands of 16 mm producers and cameramen. With it they will be able to reach the same high standards of technical perfection now prevalent in the 35 mm motion picture.

The Mitchell "16" is virtually identical to the famous Mitchell "35". It eliminates the harassing uncertainties with which 16 mm cameramen have struggled. Using the Mitchell, the cameraman knows that the "take" he has made is on the film. Completely maneuverable, built with utmost precision—the Mitchell "16" is dependable, always. *When you own a Mitchell, you own one of the world's great cameras.*

For the complete story of the Mitchell 16 mm Professional—write today for your free copy of this beautifully illustrated booklet.



JAMES WONG HOWE, A. S. C., is one of Hollywood's best known cameramen. Favored by stars because of his subtle, glamorizing lighting effects, has done much of his finest work with a Mitchell.

# Mitchell

**CAMERA CORPORATION**

666 WEST HARVARD ST. • DEPT. 8 • GLENDALE, CALIFORNIA

Cable Address: "MITCAMCO"

 85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell



# AMERICAN INEMATOGRAPHER

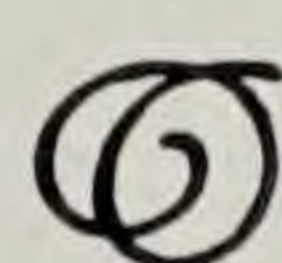
THE MOTION PICTURE CAMERA MAGAZINE

VOL. 27

NOVEMBER, 1946

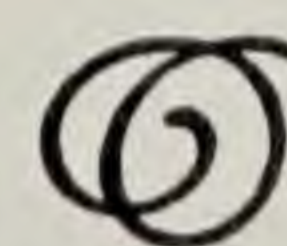
NO. 11

## CONTENTS



Aces of the Camera (Charles P. Boyle, A.S.C.) ... <i>By</i> W. G. C. BOSCO	395
New Motion Picture Equipment and Practices Disclosed at SMPE Convention.....	396
Mitchell Camera Company Opens New Plant for Expanded Production	399
M-G-M Pioneers with Subjective Feature..... <i>By</i> HERB A. LIGHTMAN	400
Maurer Introduces New Professional 16MM. Camera.....	402
The Cinema Workshop (5. On the Set)..... <i>By</i> CHARLES LORING	404
Nashville's Youthful Film Enterprise..... <i>By</i> ROE FLEET	406
Among the Movie Clubs.....	410
Personalized Greeting Trailers for the Holidays. <i>By</i> JAMES R. OSWALD	412
Current Assignments of A.S.C. Members.....	424

ON THE FRONT COVER—Fred Jackman, Jr., Director of Photography on Harry Joe Brown's Cinecolor production of "Twin Sombreros" for Columbia release, takes a lightmeter reading on Dorothy Hart; with co-star Randolph Scott an interested spectator. Michell camera at the left has been especially adapted to shoot the bi-pack (two color) Cinecolor method. Still by Irving Lippman.



### OFFICERS AND BOARD OF DIRECTORS AMERICAN SOCIETY OF CINEMATOGRAPHERS

Leonard Smith, President	Fred Jackman, Exec. V.-Pres. and Treas.	
Leon Shamroy, First Vice-President	Charles Rosher, Second Vice-President	
Charles Clarke, Third Vice-President	Ray Rennahan, Secretary	
John W. Boyle, Sergeant-at-Arms		
Arthur Edeson	Gordon Jennings	John Seitz
George Folsey	Sol Polito	William Skall
Lee Garmes		Joseph Walker

## The Staff

EDITOR  
Walter R. Greene

TECHNICAL EDITOR  
Emery Huse, A.S.C.

MILITARY ADVISOR  
Col. Nathan Levinson

STAFF PHOTOGRAPHER  
Mel Traxel

ARTIST  
Glenn R. Kershner, A.S.C.

CIRCULATION AND ADVERTISING  
Marguerite Duerr

ADVISORY EDITORIAL BOARD  
Fred W. Jackman, A.S.C.  
John Arnold, A.S.C.  
Arthur Edeson, A.S.C.  
Lee Garmes, A.S.C.  
Charles Rosher, A.S.C.  
Leon Shamroy, A.S.C.  
Fred Gage, A.S.C.  
Dr. J. S. Watson, A.S.C.  
Dr. L. A. Jones, A.S.C.  
Dr. C. E. K. Mees, A.S.C.  
Dr. W. B. Rayon, A.S.C.  
Dr. V. B. Sease, A.S.C.

AUSTRALIAN REPRESENTATIVE  
McGill's, 179 Elizabeth Street, Melbourne,  
Australian and New Zealand Agents

Published monthly by A. S. C. Agency, Inc.  
Editorial and business offices:  
1782 North Orange Drive  
Hollywood (Los Angeles, 28), California  
Telephone: GRanite 2135

Established 1920. Advertising rates on application. Subscriptions: United States and Pan-American Union, \$2.50 per year; Canada, \$2.75 per year; Foreign, \$3.50. Single copies, 25c; back numbers, 30c; foreign, single copies, 35c, back numbers, 40c. Copyright 1946 by A. S. C. Agency, Inc.

Entered as second-class matter Nov. 18, 1937, at the postoffice at Los Angeles, California, under the act of March 3, 1879.



"For just a moment . . .



LET'S  
FACE AWAY  
FROM  
THE SCREEN



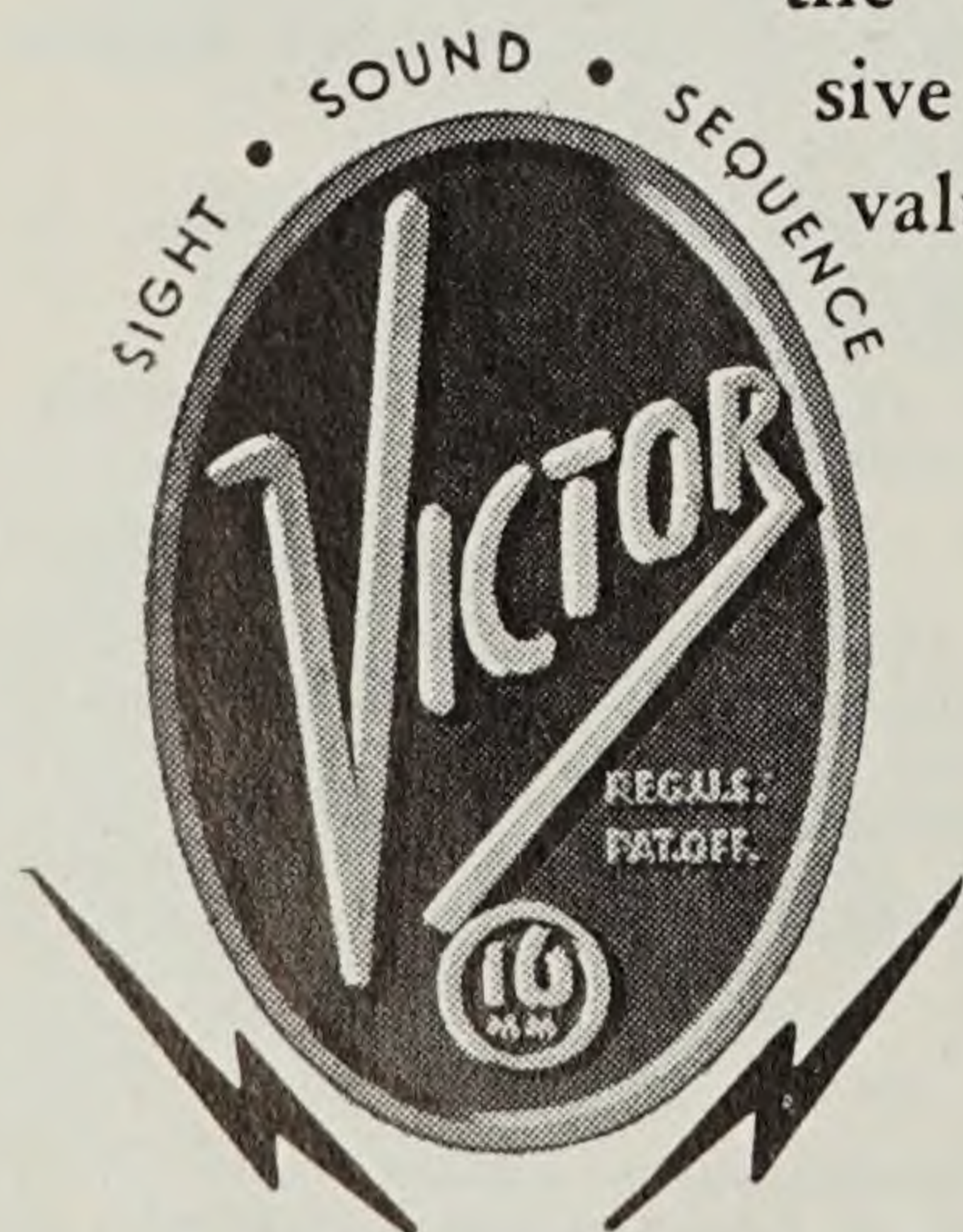
. . . and look at the VICTOR ANIMATOPHONE"

"Yes, for just a moment, let's turn toward the *projector* and see *why* VICTOR is 'the finest in 16mm Sound Motion Picture Equipment.' *First*, the Victor

Projector has correct basic design . . . easily threaded, simple to operate and maintain, with handy controls. *Second*, the Victor Projector has many exclusive safety features to protect your valuable film. Lastly, the Victor Pro-

jector has the famous 'straight line beam' for more brilliant illumination and the stationary sound drum for truest sound fidelity.

"Now, turn around in your chair—watch the screen — you're about to witness *perfect* 16mm projection. *We're using* the VICTOR Animatophone—the *finest* in 16mm Sound Motion Picture Equipment', attested by users everywhere."



**VICTOR ANIMATOGRAPH CORPORATION**

A DIVISION OF CURTISS-WRIGHT CORPORATION

Home Office and Factory: Davenport, Iowa

New York • Chicago

Distributors Throughout the World

M A K E R S O F 1 6 M M E Q U I P M E N T S I N C E 1 9 2 3



ONE of the best known, and certainly one of the best liked cameramen around the studios today is the always amiable, superbly competent Charlie Boyle; who changed his original by-line, Chas. Boyle, to the more mellifluous Charles P. Boyle, A. S. C.; not for the reasons of personal vanity, but for the very practical purpose of utilizing more space on the credit title. Such are the lengths to which self-respecting cameramen must go in order to get recognition.

In the 27 years that have gone by since Charlie first took his stance behind a camera he has been assigned to productions by most of the studios in Hollywood, both past and present, and has won for himself a niche in the cinematic Hall of Fame. But, as he sits with his charming wife in their North Hollywood home, does he ever wonder what might have been his fate had Paul Perry thrown a 'snake eyes' instead of a 'natural' during a certain momentous crap game at Balboa Beach?

You see, Charlie had not long been out of the army, and he was so fed up with the rigors of wet and cold weather, to which he had been exposed for four years in all its elemental unpleasantness, that, when he returned home to Illinois, he decided that he would most certainly remove himself to either Florida or California—but immediately. A friend of his, Paul Perry, who was even then achieving fame as a cameraman, had already located in Hollywood and urged Charlie to join him. Charlie wrote and said he would, if Paul could lend him \$100 with which to make the trip.

It seems that Paul received this letter when he was on location at Balboa, and had at his command a mere \$50. But it also seems that somewhere there was a crap game in progress. And so, with a sigh, and a final look at his last fifty bucks, strengthened in his resolve by the realization that this was for a good cause, Paul rolled once for fifty. A seven showed. And despite the loud protestations of the losers who thought they should have a chance to get their money back, Paul scooped up the winnings and, before he could change his mind, mailed it all to Charles P.

That little windfall brought Charlie out on the next train; and, once in Hollywood, Paul again came to the rescue by lining him up with an assistant's job at Paramount, to begin within thirty days. In the meantime Paul insisted that Charlie get the 'feel' of a camera and practice cranking. So, every day, for thirty days, Charlie worked out in the camera loading room with an empty camera and a stop-watch. By the end of that time he could crank at speed in his sleep.

When the picture started—it was "The Round-up," starring Fatty Arbuckle—Charlie wondered why Paul had him spend so much time learning to crank a camera. As an assistant he couldn't get near the crank. "Well," said Paul, "in this business it pays to



## ACES of the CAMERA

CHARLES P. BOYLE, A.S.C.

By W. G. C. BOSCO

be ready for anything. You never can tell what will happen."

The words were strangely prophetic. It was December, 1919, and the great influenza epidemic was sweeping the country. The company was on location up at Lone Pine and its ranks were decimated. The Indian extras were going down like flies, and on the camera crew first Paul Perry, then his brother Harry, were stricken. The director was at his wits' end and decided that there was nothing to do but pack up and go home. But Charlie, whose life in the army had made him immune to everything, offered

his services. The director decided to give him a trial.

Having taken particular notice, during the few short days he had served as their assistant, that Paul and Harry had methodically changed their lens aperture at certain times of the day, Charlie did likewise. It seemed to be an infallible rule. In thirty days of shooting no camera retakes were necessary.

And so, within the short space of a few weeks, a lucky seven and a 'flu epi-

(Continued on Page 418)



# New Motion Picture Equipment and Practices Disclosed at SMPE Convention

**S**OCIETY of Motion Picture Engineers celebrated its 30th anniversary with the greatest and largest-attended convention in the organization's history at the Hollywood Roosevelt Hotel, October 21st to 25th. The 10 technical sessions provided a wealth of information on new procedures, practices, apparatus and equipment via a total of 65 papers and demonstrations, to set a new record for a single convention.

Research scientists, engineers and technicians of manufacturers of all phases of motion picture equipment for production and exhibition, journeyed to Hollywood to give and receive vital information to accentuate the technical progress of the industry on a world-wide basis. Among the more than 250 out-of-town members attending were several from Europe, China, Canada, Central and South America.

Papers and demonstrations disclosed heretofore secret wartime developments in various phases of electronics and photography which can be adapted in many ways to increase the technical perfection of motion picture practices. Because of restrictions imposed by the SMPE in fully reporting papers delivered until after publication in the SMPE Journal during the coming six months, it is impossible to go into detail on subject matter of a number of pertinent papers, but highlights will be listed in the latter portions of this article on some of the important subjects dealing with cinematography and related practices, where basic information was available.

## Ryder New President

Loren L. Ryder, director of Paramount Studios sound department and executive vice president of the SMPE for the past two years, has been elected president of the organization for 1947 and 1948, assuming office January 1st. Other new officers include: Earl I. Sponable of Movietone News, executive vice president; Clyde R. Keith of Electrical Research Products Division of Western Electric, editorial vice president; W. C. Kunzmann of National Carbon Co., convention vice president; Edmund A. Bertram of De Luxe Laboratories, treasurer; and G. T. Lorange of General Precision Laboratory, secretary.

New members of the board of governors, each elected for a two year term, include: David B. Joy, R. M. Corbin, Dr. C. R. Daily, Hollis W. Moyse, and John W. Boyle, A.S.C.

## Pioneers Honored

For distinguished pioneering in the motion picture engineering field, on

recommendation of the honorary awards committee and approval of the Board of Governors, the names of Sam Warner, E. B. Craft and Theodore Case were added to the SMPE Honor Roll.

Members approved for Fellowship rating in the Society include: John W. Boyle, A.S.C.; Ralph B. Austrian of RKO Television Corporation; Edmund A. Bertram of De Luxe Laboratories; William F. Offenhauser, Jr., consultant to Columbia Broadcasting System; Thomas T. Moulton, sound director for 20th-Fox Studios; Lawrence T. Tachtleben of RCA-Victor Division, Radio Corporation of America; and A. Shapiro of Ampro Corporation, Chicago.

The SMPE Journal Award was presented to Ralph Talbot of Eastman Kodak for his paper, "The Projection Life of Film," which was published in the August, 1945 issue of the Journal.

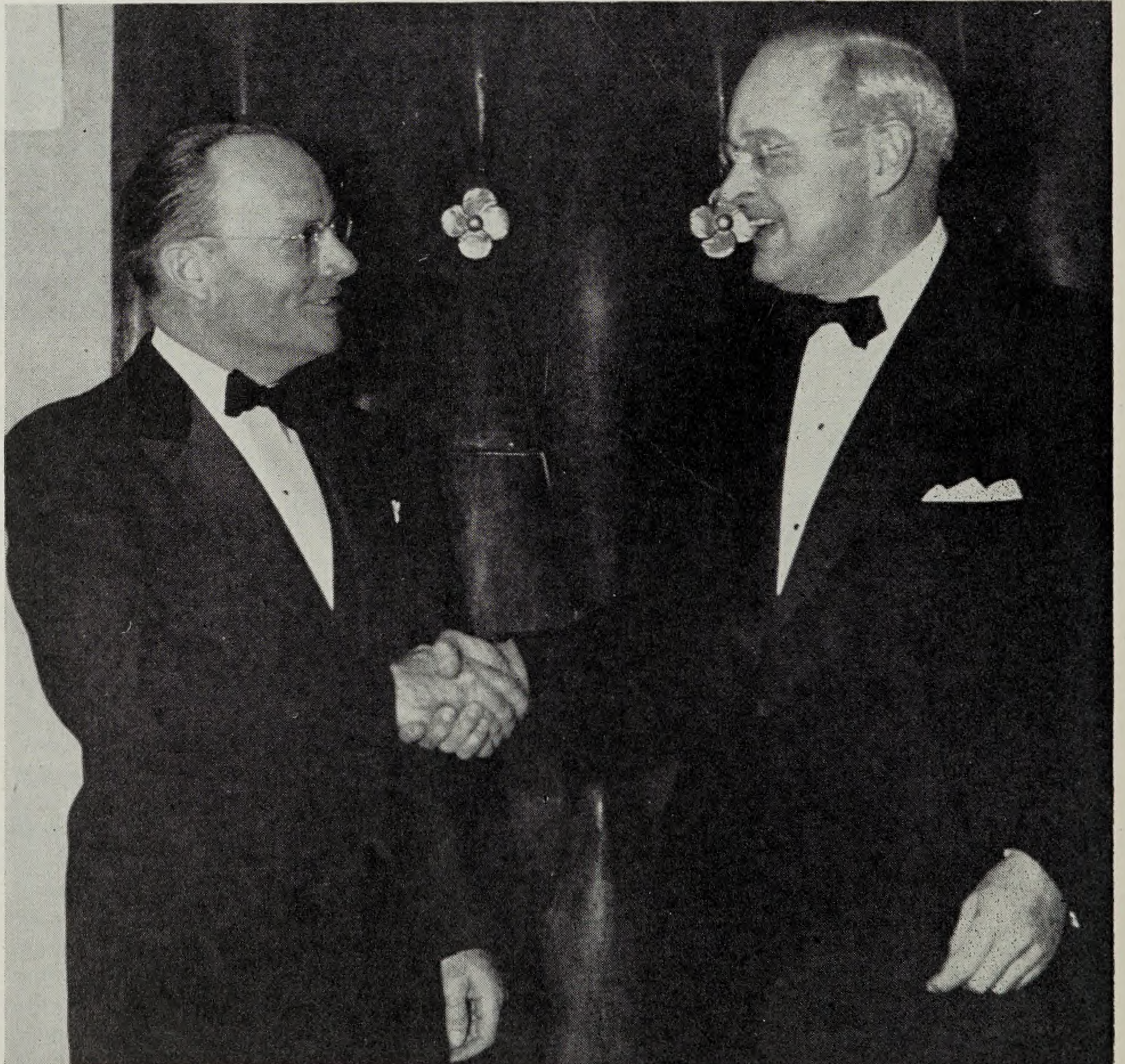
## Citations for Sound Pioneering

In recognition of the 20th anniversary of the first commercially successful ex-

hibition of sound films, SMPE President Don Hyndman presented Scrolls of Achievement to a number of companies concerned with the early development of sound. Those honored were: Bell Laboratories, accepted by Dr. Harvey Fletcher, Director of Physical Research; Dr. Lee de Forest, whose citation was accepted in his absence by Jack Gaines; General Electric Company, with S. E. Gates accepting; Metro-Goldwyn-Mayer Studios, acceptance by Douglas Shearer, director of sound engineering; Twentieth Century-Fox, with Earl I. Sponable accepting; Radio Corporation of America, accepted by Max C. Batsel; Western Electric Company, Inc., with vice president T. K. Stevenson accepting; and Westinghouse Electric Corporation, acceptance by vice president Charles A. Dostal.

## Sam Warner Memorial Award

Warner Brothers Pictures will sponsor an annual award to be administered by  
(Continued on Page 416)



President-elect Loren L. Ryder (left) is congratulated by retiring president, Don Hyndman.





Executives who accepted Citation Scrolls for their companies. Left to right: T. K. Stevenson, Western Electric Company; Earl I. Sponable, 20th Century-Fox Movietone News; Douglas Shearer, Metro-Goldwyn-Mayer; President Don Hyndman, who made the presentations; Max Batsel, RCA; S. E. Gates, General Electric Co.; Dr. Harvey Fletcher, Bell Telephone Laboratories, Inc.; Charles A. Dostal, Westinghouse Electric Corp., and Jack Gaines, for absent Dr. Lee de Forest.



DUPONT OFFICIALS. Left to right: Hollis W. Moyse, Myron A. Hatfield, M. Richard Boyer, Norman F. Oakley, Peter L. Shamray.



A.S.C. MEMBERS AND FRIENDS. Left to right: John Boyle, A.S.C., Colonel Nathan Levinson, Charles G. Clarke, A.S.C., Charles Rosher, A.S.C., Oscar Neu, William Prager, A. Shapiro.



ANSCO EAST-WEST EXECUTIVES. Left to right: Gerson Barth, Harold C. Harsh, Dr. H. H. Duerr, T. Keith Glennan, E. Allan Williford, Frank Hernfeld, J. Kneeland Nunan, Garland C. Misener, James Forrestal.



RCA ENGINEERS AND OFFICIALS. Left to right: H. D. Bradbury, Russ Little, Hal Maag, Dorothy O'Day, Art Blaney, Max Batsel, W. A. Wolfe, Barton Kreuzer, Dr. E. W. Kellogg.



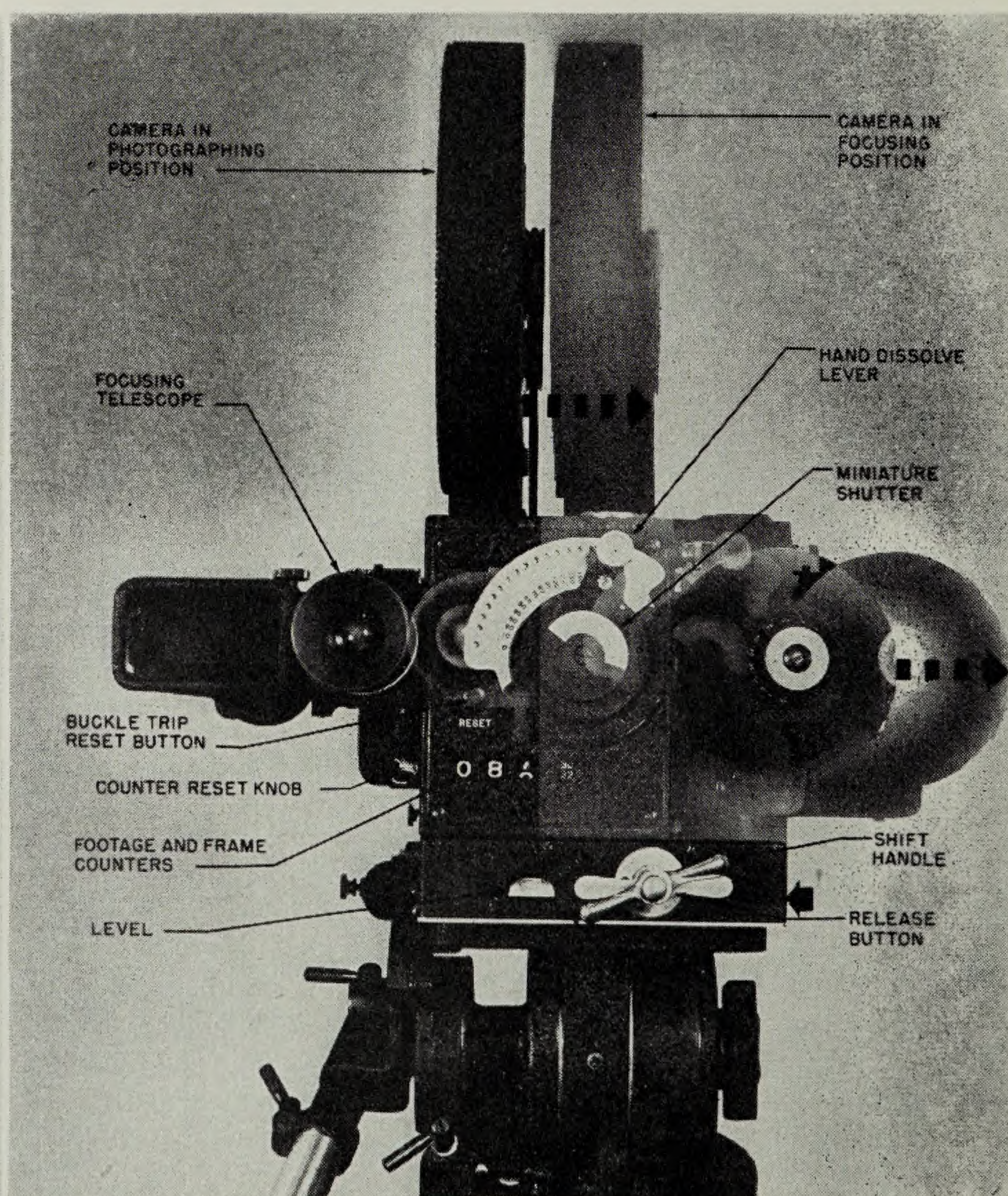
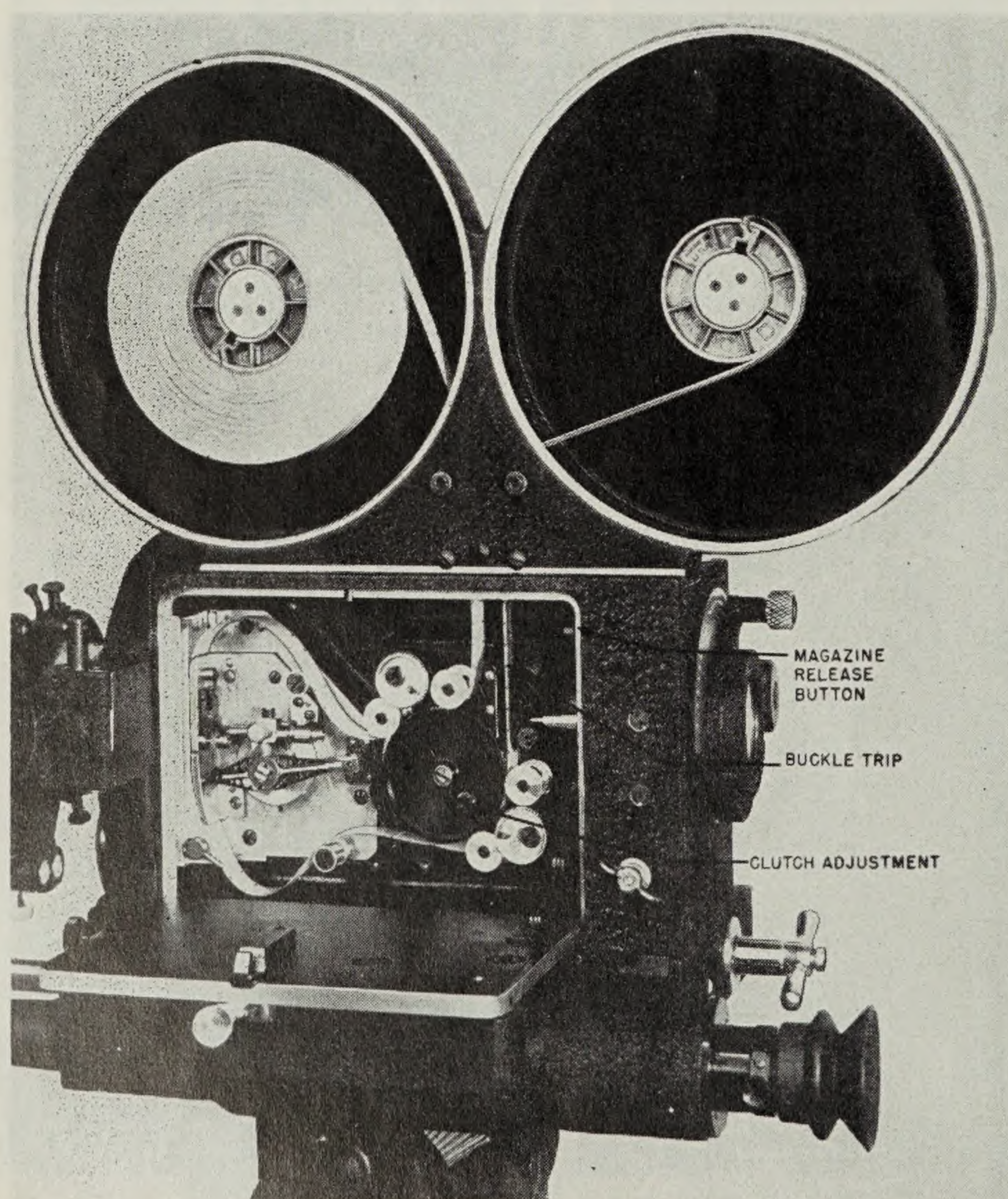
EASTMAN KODAK GROUP. Clockwise, starting at left rear: Robert M. Corbin, Norman Beach, L. E. Martin, Don Hyndman, Emery Huse, Dr. A. C. Robertson, Dr. E. Carver.

*Photos by Filmcraft—Hollywood*





AMONG A.S.C. MEMBERS WHO ATTENDED FORMAL OPENING OF NEW MITCHELL CAMERA PLANT: Winton Hoch, Wilfrid Cline, Lloyd Knechtel, Joe Ruttenberg, Paul Eagler, Ray Foster, Leonard Smith, James Wong Howe, Charles Clarke, L. William O'Connell, Tony Gaudio, Ray Fernstrom, Glenn Kerschner, Lee Garmes, Leon Shamroy, Karl Struss, Major Gilbert Warrenton Sol Halperin, John Boyle, Charles Rosher, and Harry Stradling.



SIDE AND REAR VIEWS OF THE NEW MITCHELL PROFESSIONAL 16MM. CAMERA.



# Mitchell Camera Company Opens New Plant For Expanded Production

**I**N formally opening its new factory in Glendale, California, on evening of October 17th, Mitchell Camera Company not only publicly displayed a model of its professional 16mm. camera for the first time; but also disclosed that it would soon put into production, professional-type 16 and 35 mm. arc projectors for theatrical use.

More than 1,000 producers, directors, stars and cinematographers attended the opening ceremonies, and inspected the huge plant which will turn the Mitchell precisioned cameras and projectors, and other accessories. Greatest interest naturally centered on the new professional 16 on display, and many Directors of Photography who have used the Mitchell 35 mm. camera on film productions during the past 25 years, made test shots and enthusiastically approved the smaller edition of the famous Mitchell.

Company officials made it most convenient for the cinematographers to test the new 16 mm. camera. A desert set was installed in a corner of the plant, with models on hand to pose for various types of shots and lighting setups. Numerous members of the A.S.C. tried their hands at shooting short clips.

Mitchell executives announced that the new camera had been designed specifically to meet the increasing need for precisioned equipment in the professional 16 mm. production field. Joe Leo, vice president, stated: "The new Mitchell 16 will mean both higher standards of photography and reduced production costs to the 16 mm. producers."

## Large Plant Fully Equipped

The new Mitchell factory is one of the most modern and complete on the west coast. It was built by the United States government for expanded production of Kinner aviation motors during the war, and is on a six acre site. The 140,000 square feet of factory space on one floor contains lathes, grinders, milling machines and other heavy equipment which is capable of turning out most highly-precisioned products. A large research laboratory is quartered on one side of the building.

## Mitchell Products

BNC studio model camera, which has been used for many years as the standard on film production in the Hollywood studios.

NC standard silent production model camera for professional 35.

Background projector for studio production use.



President Leonard Smith of A.S.C. lines up a shot with the Mitchell Professional 16 Camera.

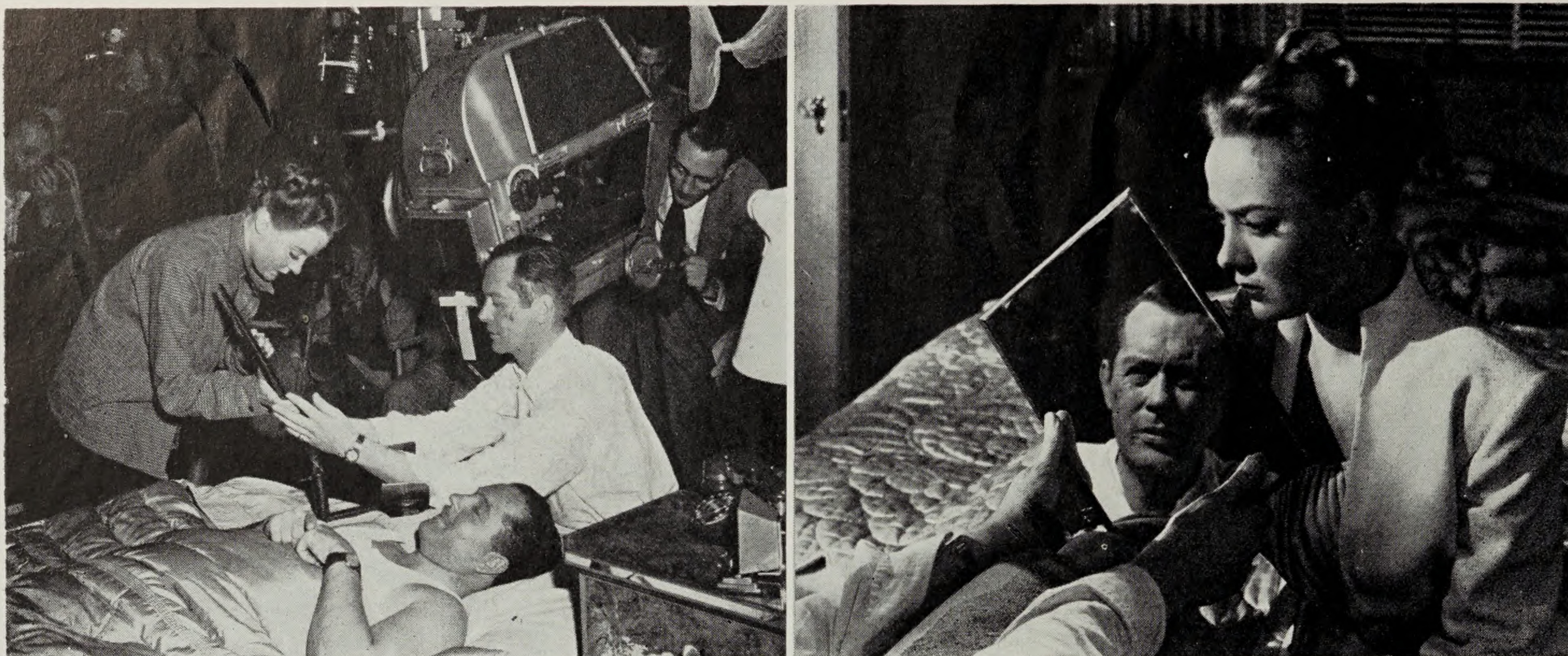
35 mm. theatrical sound projector for theatrical use. (Shortly to be placed in production).

Mitchell 16 mm. professional camera, now in production.

Mitchell 16 mm. professional projector (shortly to be placed in production).

Now in the course of final design and tooling, a line of 16 mm. cameras and projectors for home movie makers.





Left—A set still from M-G-M's "Lady in the Lake," showing preparations for filming one of the subjective scenes of the picture. In this set-up Robert Montgomery is portrayed as waking up after having been knocked out in a fight. His own face is reflected in the mirror, but his standin plays the part of his "body". Right—an approximation of this scene as it appears in the picture shown subjectively (from the main character's viewpoint). Director-star Robert Montgomery appraises his battered face in the mirror, while his v's-a-vis, Audrey Totter, sympathizes.

## M-G-M PIONEERS WITH SUBJECTIVE FEATURE

By HERB A. LIGHTMAN

RECENTLY in these pages there appeared a technical feature entitled: "The Subjective Camera," which dealt with a type of cinematic approach in which the camera assumes the viewpoint of one of the characters in the story. This article also suggested that it might be an interesting experiment to film a feature-length photoplay using the subjective technique exclusively, so that everything shown on the screen would appear as it looked to the eyes of the main character.

It was never, of course, presumed that a Hollywood studio would dare to take so radical a step—the requirements of "box-office" being what they are. Rather, it seemed logical that some experimental camera club or group would risk making a film of this type. But the improbable has happened, for it is actually Hollywood's largest studio that has dared to film the first completely subjective photoplay.

The name of the film is "Lady in the Lake," and it has just been completed at M-G-M by Robert Montgomery, who carried the dual responsibility of star and director. When it hits the nation's screens shortly, it will probably be hailed as the most unusual film ever made—because it is indeed *different*.

### Murder Through the Camera-Eye

"Lady in the Lake" is a murder-mystery based on a novel by Raymond Chandler. It chronicles the adventures



This action shot, taken during the filming of M-G-M's subjective photoplay, "Lady of the Lake," shows actor Lloyd Nolan sparring with the camera in the sequence in which he gives the hero (i.e., the camera) a black eye. Director of Cinematography Paul Vogel, A.S.C., operates the specially adapted Eyemo, while director Robert Montgomery (right) supervises the action of the scene.



of a rugged private detective, Philip Marlowe, who continually becomes involved in physical conflict with the very murderous characters he is chasing. Naturally, there is a good deal of violence, with Marlowe frequently on the receiving end.

Had this story been filmed with the usual straightforward objective technique, the picture might have been just another celluloid *whodunit*. But, presented from the subjective viewpoint, it is very exciting screen-fare indeed, and tends to prove that Hollywood has not yet tapped the full resources of its creative ingenuity.

Assuredly it took courage to kick over the traces of cinematic convention and present this technique in a feature production. The idea can be credited to director Montgomery who had long wanted to try the subjective approach on a full-length film. It was also his personal campaign, coupled with intensive preliminary technical tests that sold the idea to the studio heads. Now completed and due for early release, the film is still an unknown quantity in terms of general audience reception, but technically, at least, it is a camera triumph.

As the plot of "Lady in the Lake" unfolds, the camera as the eye of the detective is called upon to do more acting than any of the live members of the cast. It engages in repeated fisticuffs, being periodically socked in the eye, bashed over the "face" with liquor bottles, knocked down and stomped on. It smokes cigarettes, makes violent love to the leading lady, and engages in a hair-raising automobile chase that ends in a crash.

Mr. Montgomery, the actual hero of the piece, is seen only in the few narrative continuity scenes, and subjectively when he happens to step before a mirror. Watching the film, you are at first aware that there is trickery afoot. Then, gradually, you find yourself becoming absorbed into the technique of the film to the point where you suffer or thrill right along with the hero. You see everything that goes on just as it looks to him (i. e., the camera).

### A Challenge to Technicians

It can readily be seen that this sort of thing called for radical departures from standardized cinema technique. "Lady in the Lake" is a technician's picture, and as such takes a vital step forward in the development of original approaches to screen story-telling.

Special credit is due the M-G-M camera department, and more specifically to Paul Vogel, A. S. C., Director of Cinematography on the film, for clever handling of the required camera effects. This was Vogel's first studio assignment since his discharge from the U. S. Army Signal Corps in which, as a captain in charge of a special coverage motion picture unit, he filmed combat documentaries all over the European Theatre of Operations. He has brought to this film the freshness and spontaneity which



Paul Vogel, A.S.C., Director of Cinematography on M-G-M's completely subjective photoplay: "Lady in the Lake," demonstrates the specially adapted 400 foot Bell & Howell Eyemo used in the film's fight sequences. Fitted with a shoulder bracket, rigid brace extending to the operator's waist, and twin handles, the camera is usually steady and mobile. The modifications were designed by John Arnold, A.S.C., head of M-G-M's camera department.

the script's machine-gun pace and unusual approach demanded.

Foremost among the many camera problems inherent in the filming of the picture was the unusual amount of camera movement required in order to simulate the active meanderings of detective Marlowe. To accomplish this fluid effect, John Arnold, A. S. C., head of M-G-M's camera department devised an especially mobile camera dolly with sets of independently controlled wheels at either end, much on the order of a fire engine hook-and-ladder. This dolly "walked" through doors, down corridors, and up stairs with great natural facility.

Fight sequences, in which the detective spars with his assailants and is finally knocked down, demanded an even greater mobility of camera. To meet this need, Arnold designed a special shoulder bracket and brace which he adapted to a standard 400 foot motor-driven Bell & Howell Eyemo. In this way, cinematographer Vogel was able to actually

"wear" the camera and spar realistically while doing so. As shown in the accompanying illustration, the Eyemo thus adapted would probably make an excellent combat camera, since it would eliminate the general complaint of service cameramen using the 100 foot model that they tended to run out of film just as they were warming up to a sequence.

### New Camera Point-of-View

The matter of *perspective* was highly important in planning the camera approach to "Lady in the Lake." Tests were made with various focal length lenses and it was finally decided that the standard 50 mm. lens gave the most normal perspective. Difficulties relating to *depth of field* developed when, in certain sequences, it was necessary to show the main character's hands in the foreground of the frame, with strong plot action developing in the background. It was difficult to hold an acceptable focus in both planes.

(Continued on Page 425)

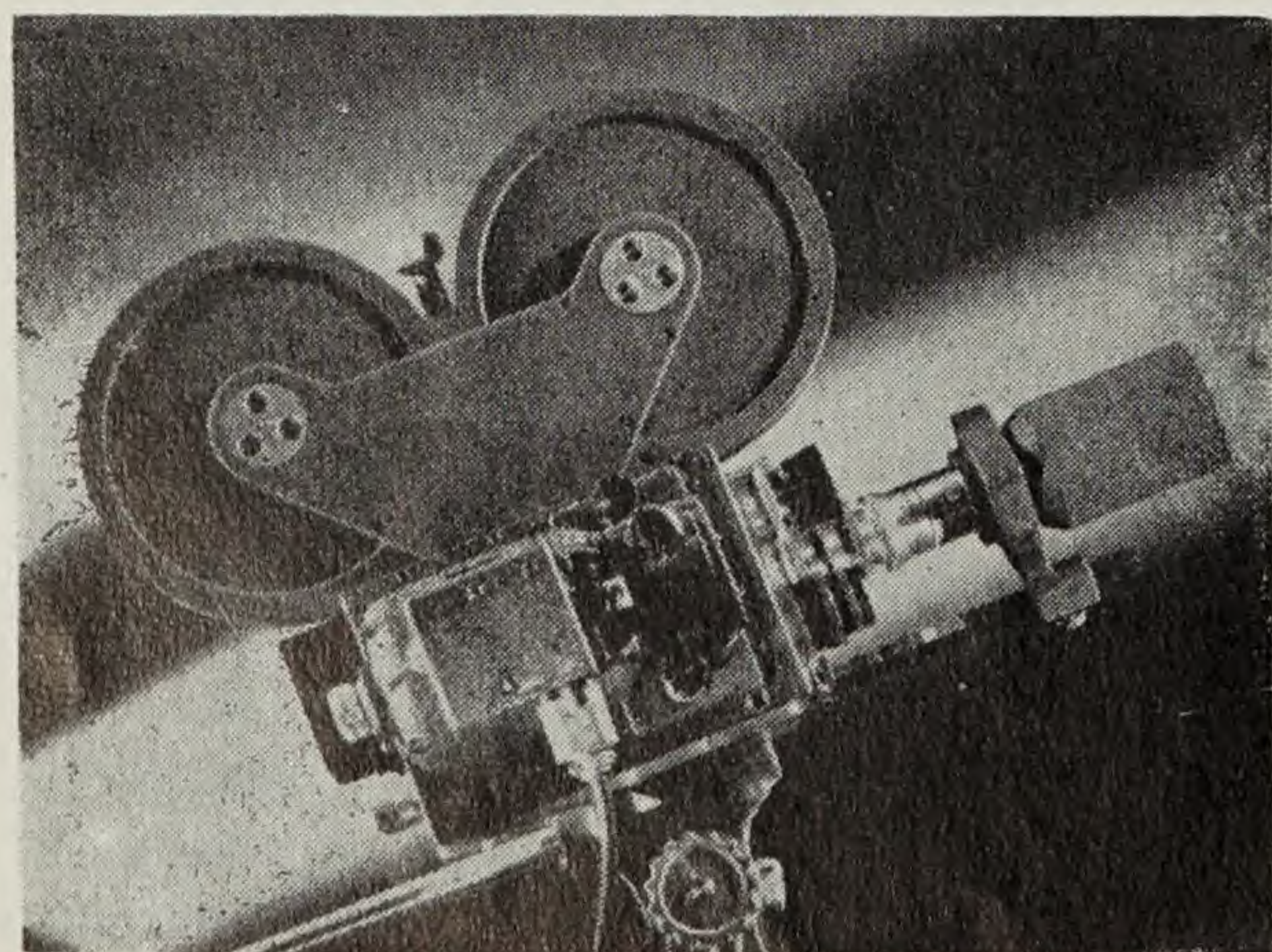


**I**N the past few years there has been a marked increase in the direct 16-mm production of professional films. This increase, however, has failed to keep pace with the widening market for 16-mm motion pictures. One of the principal reasons for this relative lag in direct 16-mm production has been the shortage of 16-mm production equipment of professional quality. J. A. Maurer, Inc., in announcing the new Maurer Professional Motion Picture Camera promises to break a severe bottle-neck in the 16-mm field.

The Maurer organization, with 12 years experience in the design and manufacture of professional 16-mm cameras, has in its new camera added many features never before offered in a 16-mm camera, and several features that are entirely new to motion picture photography. Among the new features are an extremely critical high-power microscope focusing system, and an intermittent movement that provides accurate registration with a pull-down claw which registers the film at the end of the pull-down stroke. Other features include a rack-over mechanism for viewing through the taking lens, gear-driven film magazines, and a new type large view finder.

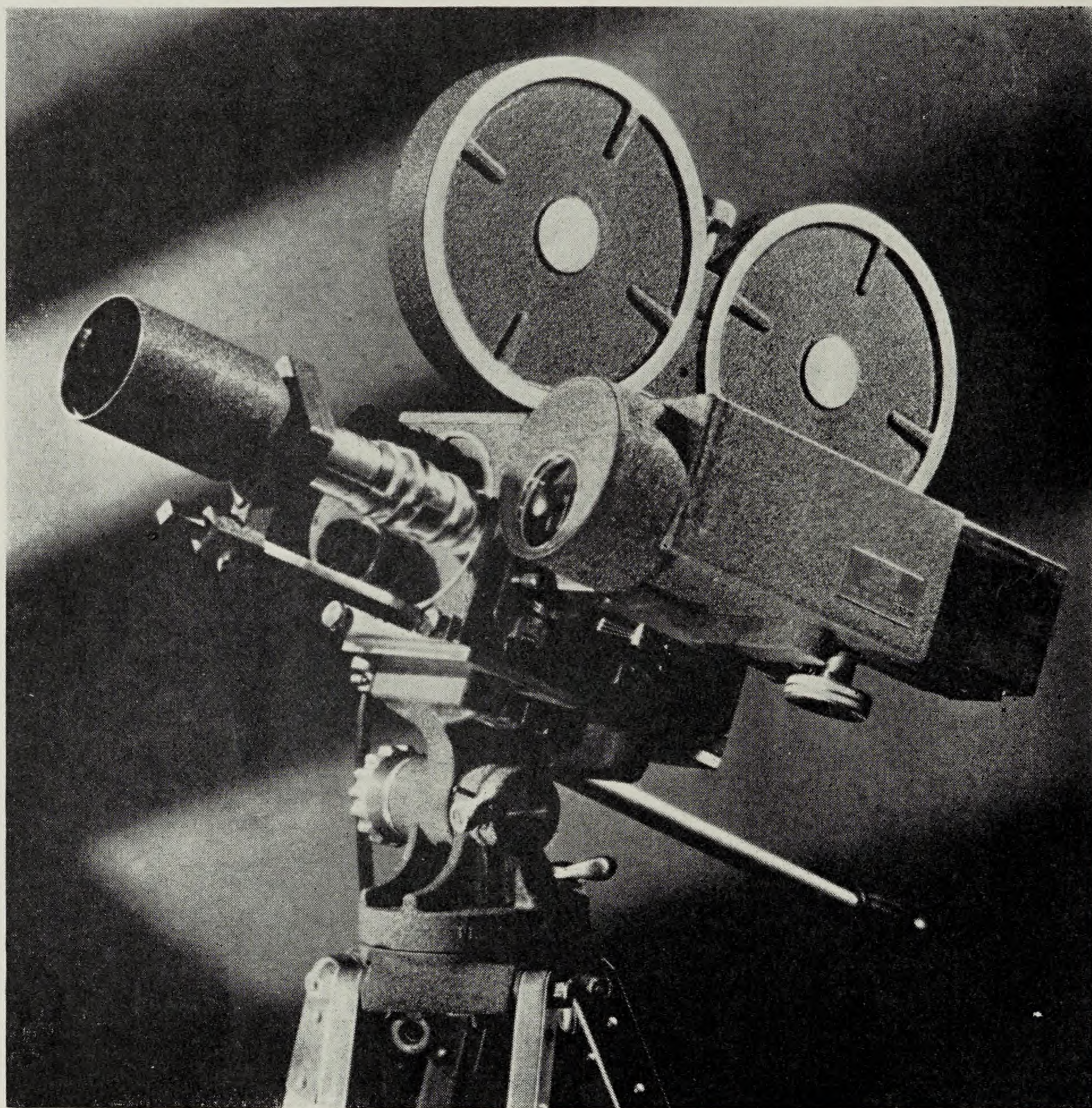
The view finder of the Maurer Camera gives a large erected and laterally corrected image  $2\frac{1}{4} \times 3$  inch in size. The optical system works at F:5.0, giving an image that is brilliant over the full field. The  $2\frac{1}{4} \times 3$  inch image is obtained for the 15-mm wide angle field, and for the standard 25-mm field. A set of four wires serves as a framing device for lenses of longer focal length. All four wires are controlled by a single knurled detent. The Maurer finder corrects for parallax automatically as the subject is focused in the finder. This eliminates an adjustment that has been necessary heretofore. The finder detaches from the camera very simply, permitting the director or cameraman to compose and view the set from different angles without moving the camera.

The intermittent movement of the new Maurer uses a pull-down claw that serves as a registration pin as well. The claw is made so that at full thrust into the film perforation it completely



Side view of Maurer 16.

## Maurer Introduces New Professional 16mm. Camera



fills the perforation from top to bottom. At the end of the pull-down stroke the claw stops momentarily with the film, the film is thereby accurately registered, and the claw then withdraws from the perforation in a direction perpendicular to the film. The shutter then opens.

The new Maurer has a  $235^\circ$  maximum shutter opening, giving exposure of  $1/35$  second at sound speed, or about  $\frac{1}{2}$  lens stop additional exposure than is obtained with conventional  $170^\circ$  shutters. The shutter may be manually set to any angle less than  $235^\circ$ . Automatic fades or lap dissolves of 40 frames or 64 frames can be made by means of a control lever on the rear cover of the camera.

A rack-over device provides means of viewing and focusing directly through the taking lens. Racking the camera over places a clear glass reticle directly behind the taking lens in the plane of the film emulsion. A fine line etched on the reticle frames the projector aperture, as contrasted to the camera aperture. A picture can thus be composed knowing

what will be photographed on the film, and what will be projected onto the screen.

The new Maurer has a small internal turret by means of which the optics in the focusing microscope may be changed for different purposes. One turret position is used for viewing the field of 25-mm or longer focal length lenses. The second turret position gives a full view over the entire field with a 15-mm wide angle lens in taking position. The third turret position places a high-power microscope objective in the optical path giving a 175 diameter magnification of the center of the field for critical focusing. The image formed by the camera lens is brought into simultaneous focus with a pair of cross lines engraved on the reticle and lying accurately in the film plane. This method of critical focusing is more accurate than the usual method of employing a measuring tape in combination with a carefully calibrated focusing scale on the lens mount. It is also a quicker and

(Continued on Page 419)



1870

1946

Jules E. Brulatour



THE first day of shooting on any motion picture is usually fraught with tension. There are doubts of one kind or another in the minds of each person working on the film. The director is not sure that he will be able to establish his pace at once; his assistant is minus a thousand extras; the cameraman is certain that he will be either *under* or *over*-exposed; the actors have all forgotten their lines, and their minds are perfect blanks.

This kind of chaos is, up to a certain point, a normal healthy state-of-affairs. It indicates that all of the personnel are thinking seriously about the job to be done and are anxious to do it well. Out of the confusion of the first day (if pre-planning has been intelligently done) there should emerge a smoothly-functioning pattern of production.

Up until we reach the shooting stage, every phase of production is in *idea* form, either precisely detailed on paper, or firmly conceived in the minds of the technicians. It is *on the set*, however, that these various ideas are blended and translated into action. It is *on the set* that static words on a script come alive and actors begin to move and breathe as *characters* in a screen story.

There is no *one* right way to make a film. The procedure varies with individual directors, as well as with different subjects and types of production. Therefore, the following plan of set procedure is presented, not as the way to make a picture, but as *one* way of filming that has proven successful and practical in most types of picture-making. It is suggested that you take these Basic and necessary *general* methods of operation and adapt them to your specific type of filming.

In outlining the following methods of set routine, we shall suppose that you are shooting a more less pretentious type of semi-professional film (as distinguished from "home movies"), and that it entails both interior and exterior sequences. We shall further assume that you have available sufficient personnel to specialize the various jobs that have to be done.

#### Before the Cameras Roll

It is the first day of shooting, and according to the detailed shooting schedule, interior scenes are to be filmed today. The cameraman and his assistants are the first to arrive on the set. While the cast is climbing into costumes and make-up, the camera crew is busy setting up equipment and placing lights. The preliminary placement of lights and camera follows the diagram as sketched in the "dope sheet" for that scene (which we discussed fully under *Production Planning*). The lighting is "roughed in" according to the sketch, with the understanding that it will be more precisely set later during action rehearsals.

While this is going on, the prop man is checking his list to see that everything required as an action prop or set dressing is available. He will want to

avoid having to interrupt shooting because some prop turns up missing just as the cameras are ready to roll.

Meanwhile, the sound crew will be checking their equipment to insure its proper functioning. They may also tentatively place their microphones and sound booms to get them into their general locations before the action rehearsals begin.

At about this point, you, the director, arrive on the scene. If the cameraman, for instance, has set his camera in a bit too close, or if he has misunderstood the key of the lighting chart, you proceed to set him straight on it. If the prop man can't find one of the required Siamese elephants, you discuss possible substitutes with him, etc.

Then, you and your assistant sit down together in a corner of the stage and proceed to review the requirements of the day's shooting. You discuss the notes you have previously made on the scheduled scenes. You thrash out any last minute inspirations that might have developed. If there is any doubt as to the effectiveness of a planned technique, you devise an alternate that might be tried in case difficulties develop.

Your assistant may have a few questions as to the pace or movement of the background action, which it will be his job to direct. These and other questions you can answer for him at this time.

#### "Walk-through" Rehearsals

Now your actors have arrived on the set, all made-up and costumed. You check their appearance carefully to see that everything is as required in the script. If any of them have any doubts or questions about the scene to be filmed, you can clarify the uncertainty then and there.

The actors make a last minute check of their lines and action (which they are supposed to have memorized during the pre-shooting rehearsals), and you are now ready to conduct a "walk through" rehearsal of the scene. This consists of running through the dialogue coupled with the actions, in order to synchronize the two, and indicate in which areas of the set each bit of business is to be played. The actors recite their lines, but make no attempt at this point to interpret them dramatically, nor do they elaborate on the basic action of the scene.

# The Cinema Workshop

(For Semi-Professional and Amateur Production)

## 5. On the Set

By CHARLES LORING

Meanwhile, the technicians take advantage of this rehearsal to polish their arrangements. Perhaps the cameraman will find that he has neglected to light the corner where the hero's most significant action takes place. The sound man may well find that his microphone cannot follow the leading man unless the pace of his movements is slowed down a bit, etc.

When the walk-through rehearsal has been polished to everyone's satisfaction, a short time-break is called. This is an important interval. The cameraman may ask the leading lady to pose in place while a certain light is adjusted. (In the professional studios, standins are used for this. But your actors will probably have to do their own roasting under the lights.) As soon as the lighting is okayed, the still cameraman steps in and takes record shots of the set and the actors as they appear in the sequence, so that their appearance can be precisely duplicated from day to day during shooting.

The camera crew will be making a final check of its equipment. The sound crew will have set its instruments for the proper voice level. Someone will stand ready with a make-up kit plus a needle and thread to make last minute repairs in make-up or costuming. The script clerk will be ready to take secretarial notes on all the details of shooting plus any last minute changes that are made during filming.

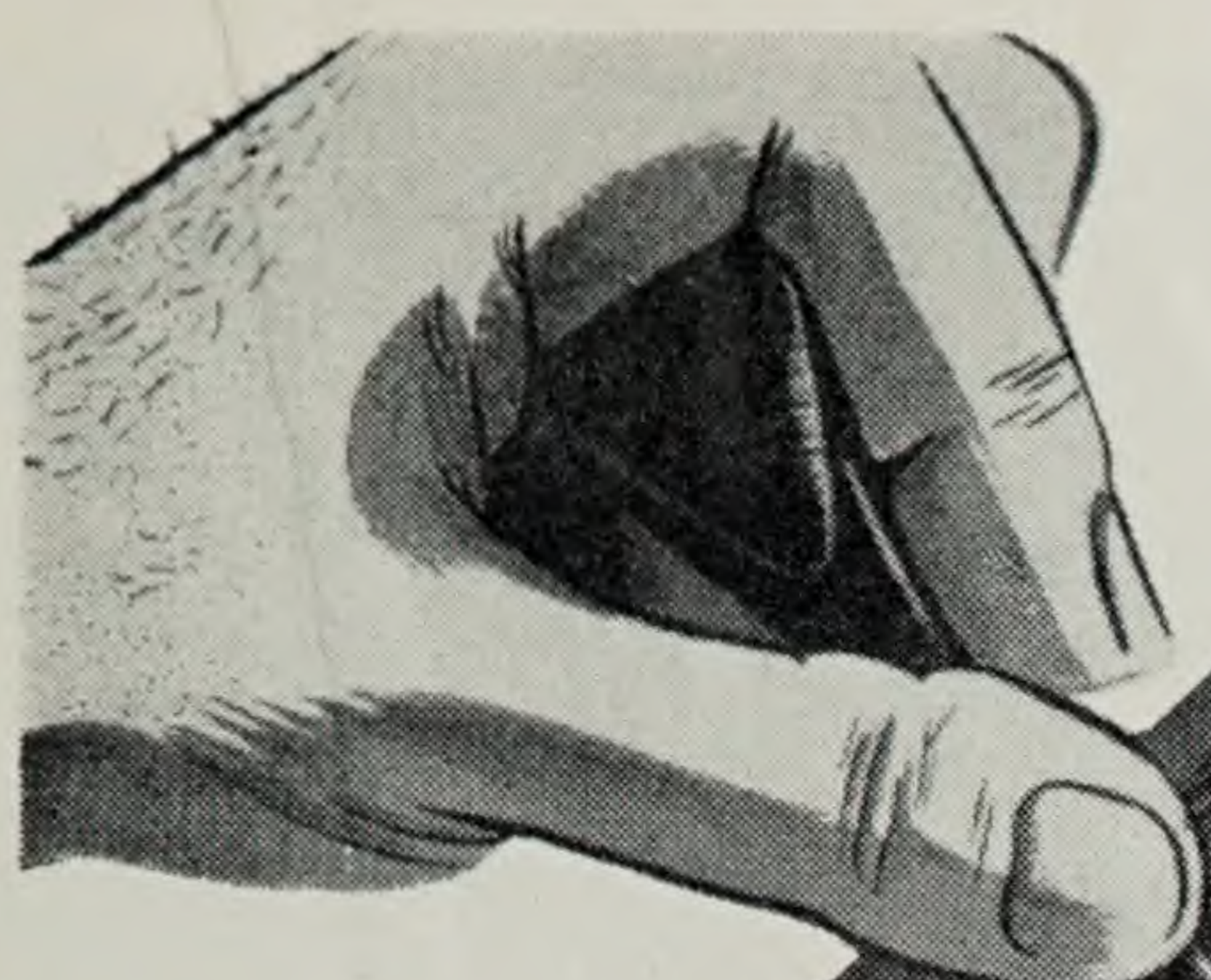
#### Preparation for the "Take"

You now take your cast aside, sit them down in a quiet corner, and proceed to give them a final "pep-talk." You explain the mood and pace of the scene. You briefly sketch for each actor the point-of-view of the character he is playing at this particular stage of the narrative. You talk quietly, but with imagery, getting your players into the mood.

Everything is now ready for the final rehearsal. This time your actors go through the dialogue and action, giving their full interpretation of the scene as it is to look on the screen. They include all of the little nuances of expression, the pauses, the emotion—everything to give the scene body and depth. You quietly make corrections if there is something that is not quite right. Avoid

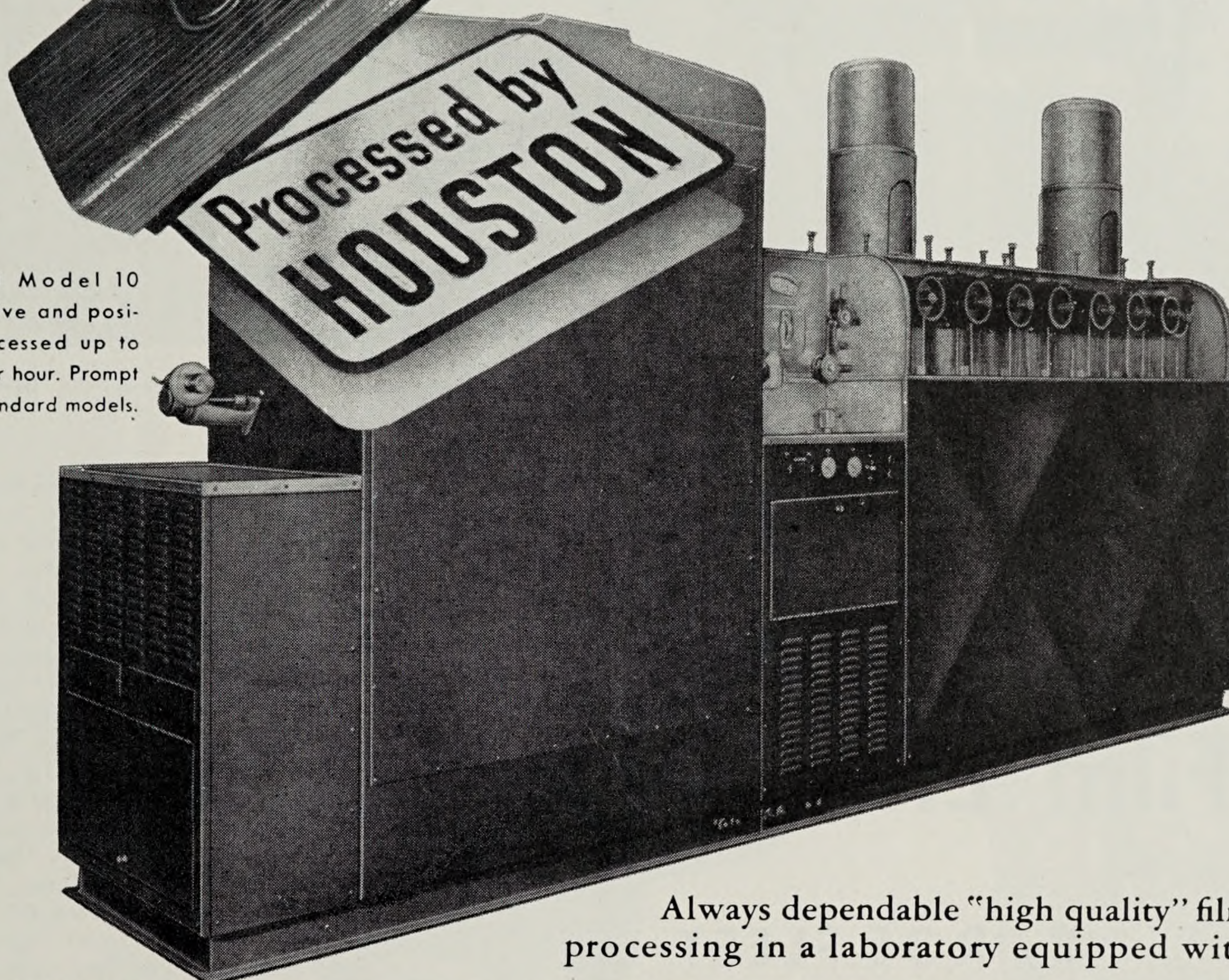
(Continued on Page 423)





# THE FILM INDUSTRY'S *Code for Quality*

HOUSTON Model 10  
35mm negative and positive film processed up to  
2400 feet per hour. Prompt  
delivery on standard models.



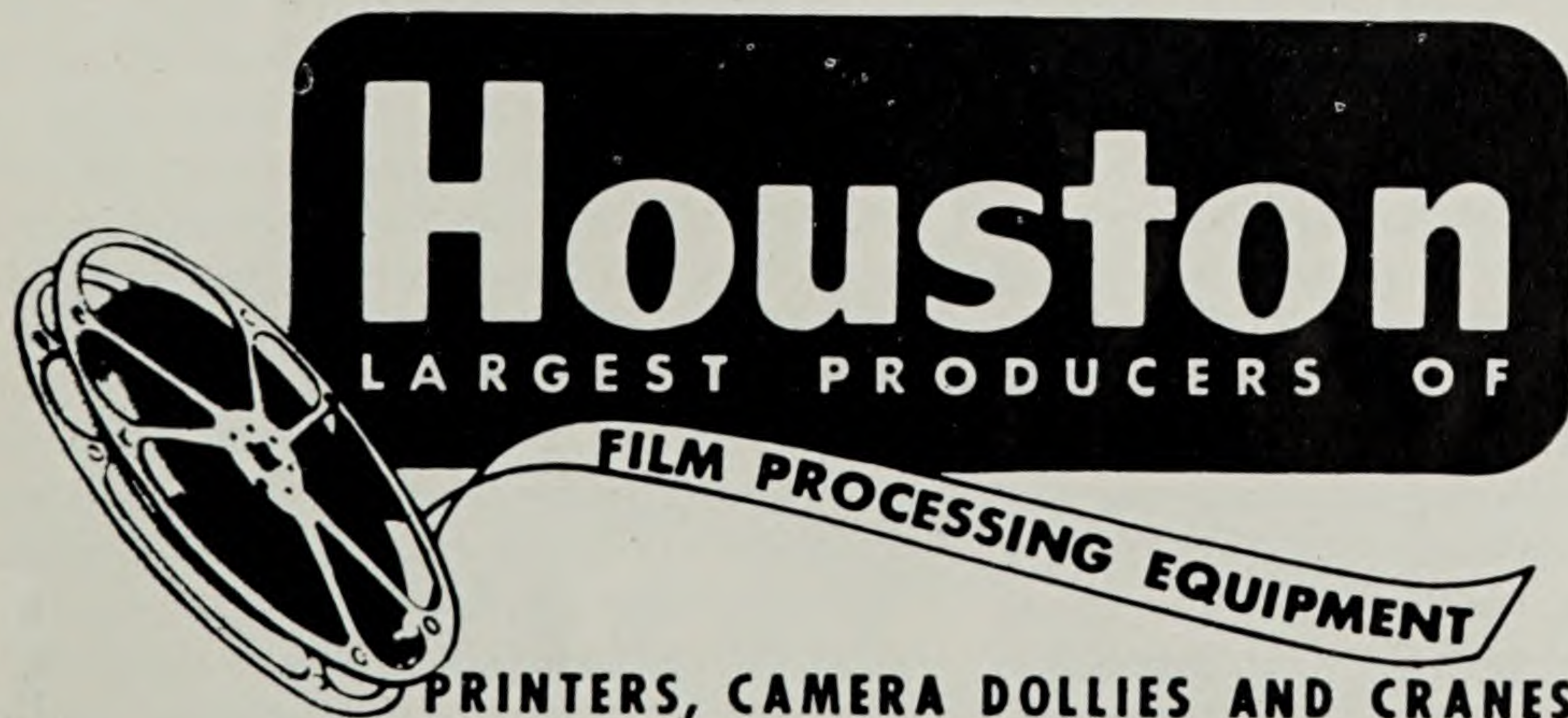
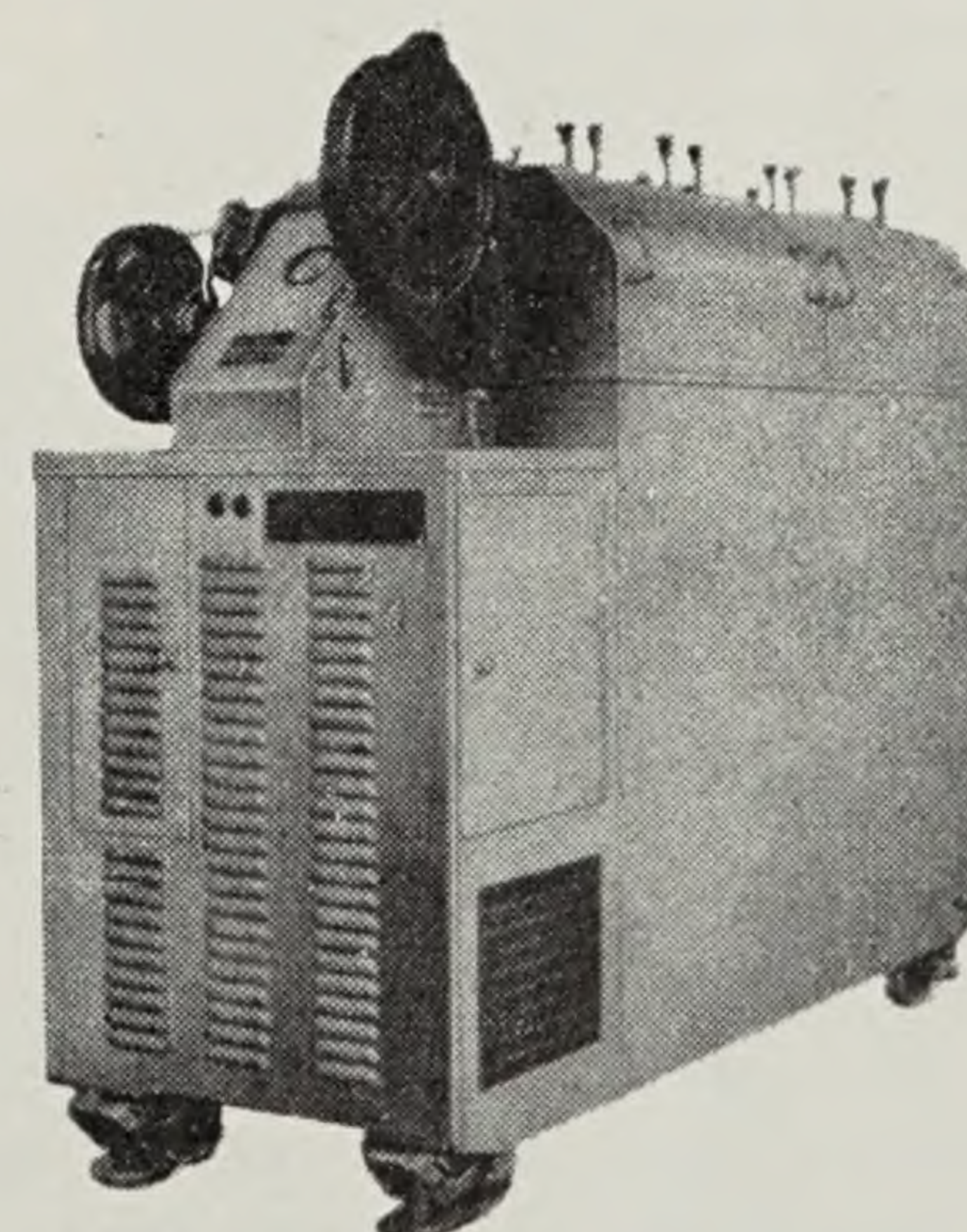
Always dependable "high quality" film  
processing in a laboratory equipped with

## HOUSTON PROCESSING MACHINES

- ☆ Positive *film tension* control by adjustable friction clutch drive.
- ☆ Thermostatic Temperature Control of solution by refrigeration and heating.
- ☆ Continuous replenishment of developer from built-in storage tanks.
- ☆ Fully automatic. Completely self-contained. Stainless steel construction.

Standard equipment may be adapted to  
meet your special processing requirement

HOUSTON PORTABLE  
Model 11—16mm  
Daylight processing of  
16mm positive, negative  
or reversal film up to 25  
feet per minute. Available  
for immediate delivery.



*Write for descriptive folder*

**THE HOUSTON CORPORATION**  
11801 West Olympic Blvd. Los Angeles 25, Calif.





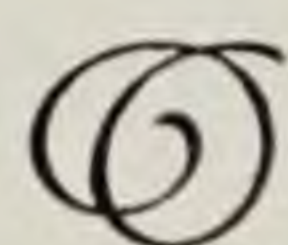
Producer-director William Gernert puts finishing touches on model sea for long shots.



One of the many typical sets constructed for "Treasure Island."

# Nashville's Youthful Film Enterprise

By ROE FLEET



**W**ILLIAM GERNERT is founder, director and art director—also president—of W. G. Pictures Studios located on Caldwell Lane, Nashville, Tenn. The latter, only motion picture company in Nashville, is composed entirely of boys in their 'teens; but their enthusiasm and three years' progress since launching the enterprise, is particularly noteworthy for passing along to other amateur cinematographic enthusiasts.

Seventeen-year-old William Gernert's initials grace the impressive title of the company. Young Gernert has unusual talent for creating ideas, and an artistic touch for realism. Make the film look real or abstract and in perspective is William's basic idea. Sixteen-year-old

Craig Faulkner photographs the miniature productions, is chief cameraman, and responsible for special color and lighting effects. Assistant photographer and art director is John Payne, whose head is always whirling with new ideas, tricks, and photographic effects for the productions of the company.

Currently deep in the actual production and shooting of Robert Louis Stevenson's "Treasure Island," the W. G. group works out its own sets, creates puppet characters, and films the pictures either in black-and-white or color (16mm.)—all in their combination studio, production office, and projection room in the large basement of the president's home. The studio embraces half a dozen stages—naturally small for the

production of puppet films, an office, film room, and quarters for sketching, costuming and designing of props. "Treasure Island" is being photographed in black-and-white, and is slated to run about 750 feet. The sound system is supplied by means of recordings which are purchased before the individual film subjects are created. Thus action and dialogue is built around the music mood of stories suggested by the records; and all takes are properly synchronous for action to be in time with the film.

Among the many techniques used are fades, lap dissolves, boom and dolly shots, etc.; pictures are produced with a professional touch throughout. W. G. members are very particular about back and side lighting. Although an Eastman Kodak camera is currently being used, the hope is for eventual acquisition of a new Mitchell 16mm. professional model, so the youthful producers can "let go" and put all of their ideas onto the films they plan for the future.

Working mostly on Saturdays, the young movie magnates are now on their fifth production, the first having been "Pinocchio." Second venture was "Lady in the Dark," which was done merely for practice, and because the trio were all so enthusiastic over the original film production. This film is only shown for personal pleasure. Third film was "A Christmas Carol," and the fourth ventured into color with "Alice in Wonderland."

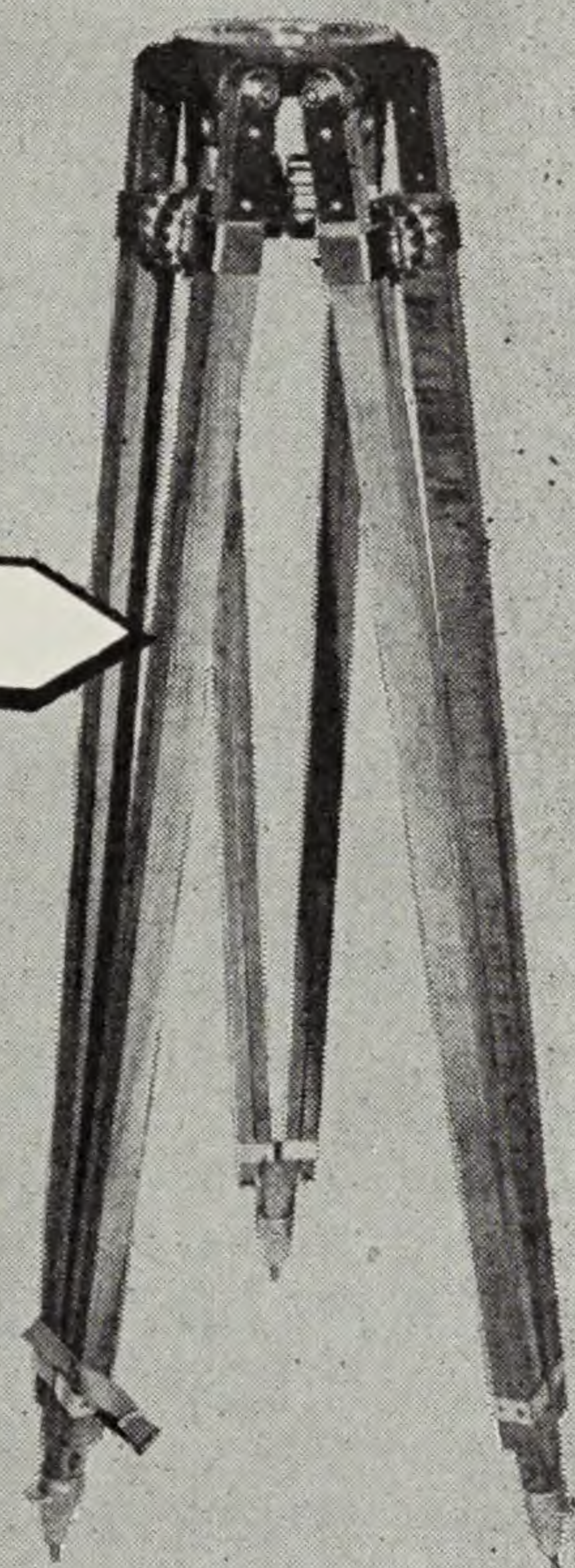
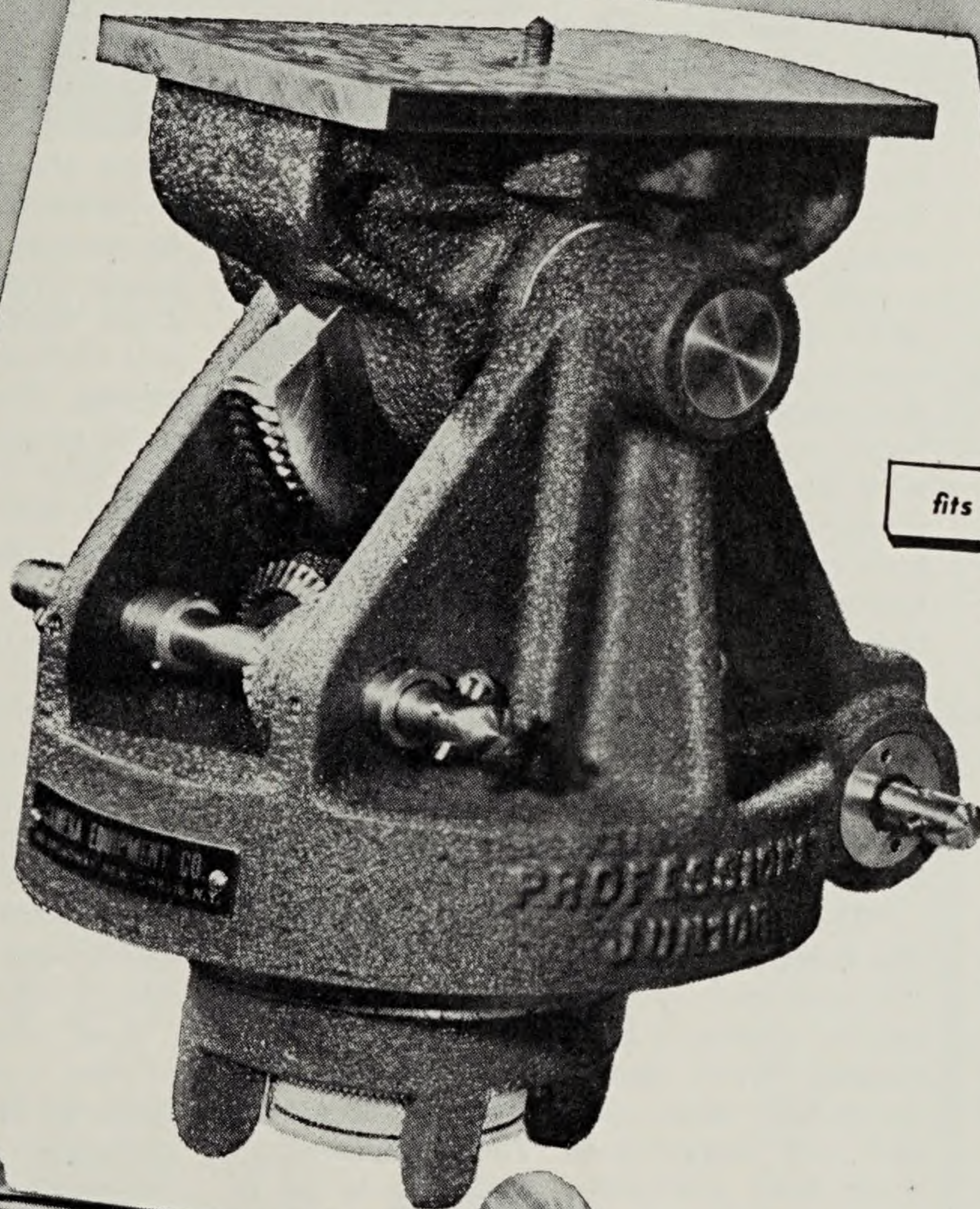
A picture is initially created through the selection and purchase of records which are chosen for story idea presented, and the sound effects or music background. From the records, the script is prepared. Then a meeting is held for playing the records over and over for ideas and suggestions on the final script. Sketches are then drawn of each scene and assembled on a large bulletin board for general discussion and final approval. William then asks for opinions on the possibilities of shooting the subject, and if it would be the type carrying audience



# Smoother, finer Pan & Tilt Action with a "PROFESSIONAL JUNIOR" GEAR-DRIVE TRIPOD

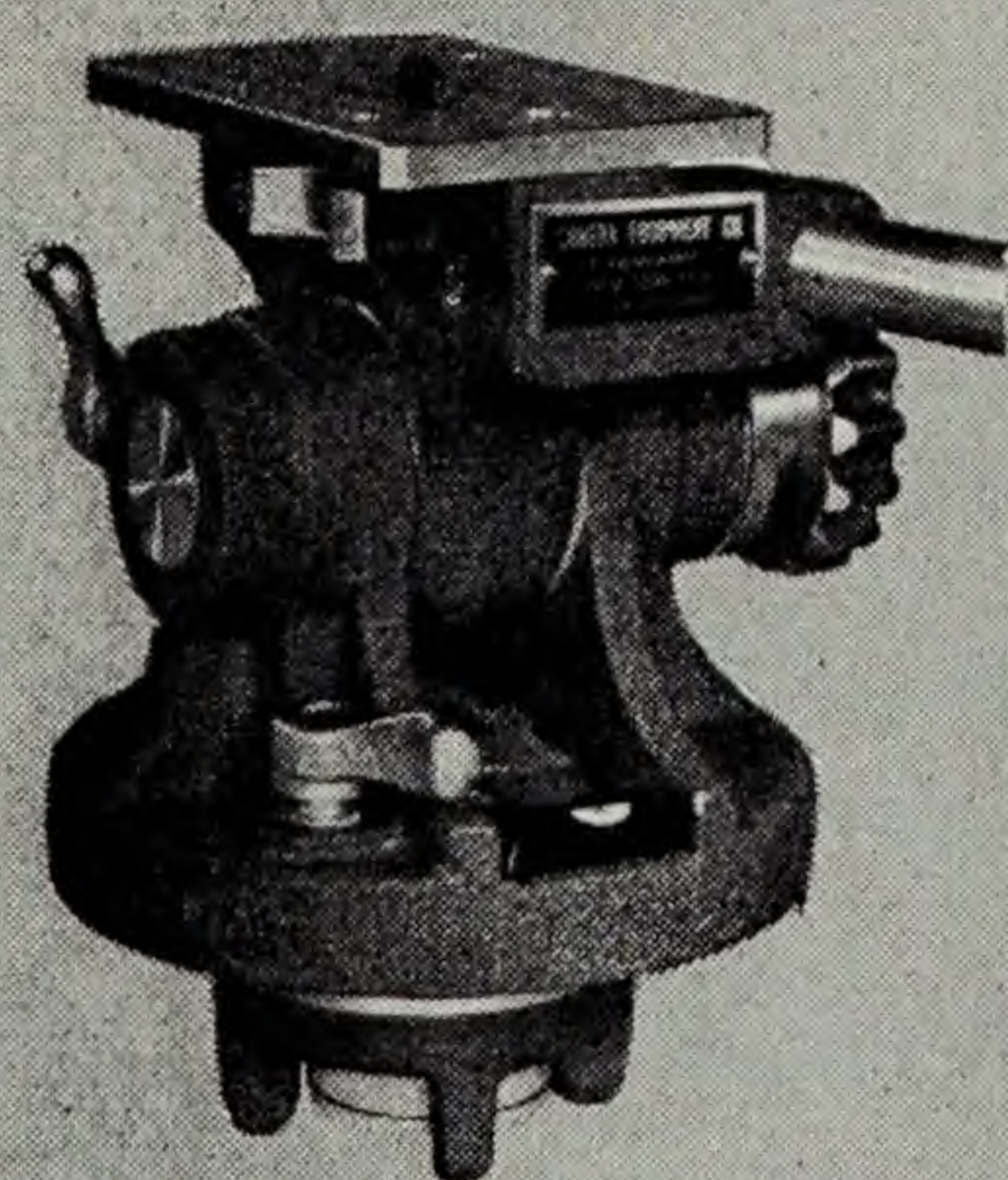
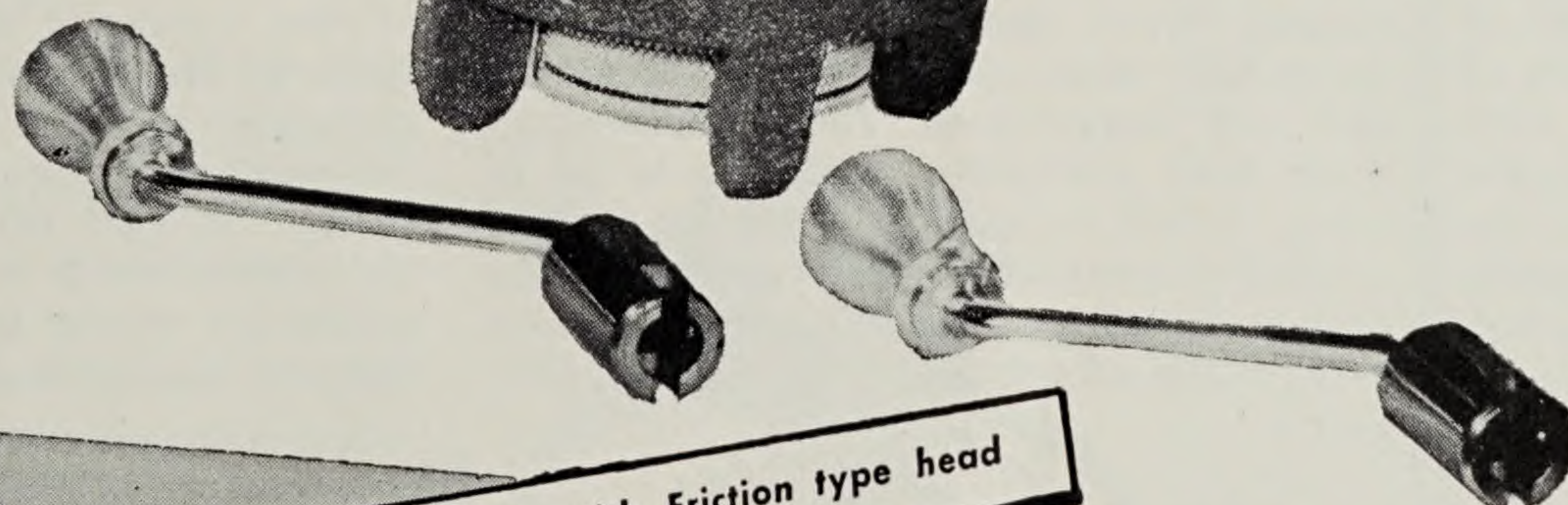
## GEAR DRIVE HEAD

Crank action from either side controls super-smooth 360° pan 65° tilt action. Removable head of DowMetal weighs only 5½ lbs. Built-in spirit level. Gov't spec. bronze worm gears. All-metal cranks.



## STANDARD BASE (LEGS)

For both Gear Drive and Friction type heads. Rock-steady, compact and light. Permits shooting heights of 72" high — 42" low. Fluted lock knobs on each leg for positive easy wrist-action adjustments. Non-warping wood legs have metal spur feet and tie-down rings.



## FRICTION TYPE HEAD

Super-smooth 360° pan — 80° tilt action. Tension knobs allow positive adjustments and control. DowMetal head weighs only 3½ lbs. Built-in spirit level. Extra sized trunnion (main bearing) insures long service.

★ S-L-O-W, super-smooth panning or dynamic action shots are achieved only when the camera itself is kept rock-steady. A rugged, sturdy and versatile tripod is the only answer. That's why "PROFESSIONAL JUNIOR" tripods, designed by professional craftsmen, precision made of the finest materials are the finest available. Interchangeable, both the Gear Drive and Friction type heads can be used on our Standard Base (Legs), "Hi-Hat" low-base adaptor and Baby (all-metal) tripod.

★ All leading professional studios and newsreel companies use "PROFESSIONAL JUNIOR" tripods. These tripods handle all 16mm movie cameras and 35mm hand-held type movie cameras even when equipped with motors and over-sized film magazines; and fine "view" still cameras. Before purchasing any tripod see "PROFESSIONAL JUNIOR" models and compare. Complete details about our tripods and other camera accessories in an 8-page catalog sent free. Write today!

**Tripod Heads Are Unconditionally Guaranteed  
5 Years. Order yours now for immediate delivery**

FRANK-ZUCKER CABLE ADDRESS: CINEQUIP  
**CAMERA EQUIPMENT CO.**  
1600 BROADWAY N.Y.C. CIRCLE 6-5080



appeal. Research is presented on story period and costumes, after which the most important report of the treasury is presented to determine whether the budget can manage the cost of each individual scene and sequence, and the overall production.

From the original sketches, full color drawings of the costumes are created, and usually a good consultant on costuming is called in for suggestions and criticism. Next conference discusses the matter of photographing in color or black-and-white. If the costumes are too dark for dark backgrounds in black-and-white, adjustments must be made. Aim is to create well-balanced scenes. If a background is light, the character under consideration must be darker. Conversely, dark backgrounds necessitate lighter characters.

The photographer and assistant work on good compositions and different angles that will carry more visual appeal and create the feeling of third dimensional effect. The director and photographer confer on times for camera movement, and huddle on fades, lap dissolves, etc. and rightful places of each in the picture. Such meetings may continue for hours, and often problems are "slept on" before decision of the group is arrived at. Rehearsals are then staged for proper timing of the marionettes' actions with mechanical action on the set itself. Lighting is also checked at this time for utmost effectiveness.

On the set of the chubby and large 18th century British vessel about nine feet long (in scale with size of the small marionettes) created for "Treasure Island," the problem was presented of lighting the tiny lanterns at the stern of the ship. Solution came, however, with insertion of Christmas tree lights in the balsa and cellophane lanterns. Then, the moon in the background for night scenes presented another lighting problem, but, a circle was cut out of the background

and a piece of gauze was placed on the reverse side with a light behind to throw an even glare over the moonlight scene desired.

If closeups are desired, producer William makes two characters of the same figure—one character for distant shots and the other twice as large for closeups. The larger figure allows for addition of more detail such as eyelashes, lips that look moist, and hair with every curl in place. It might be pointed out that the characters move their mouths by means of manipulated strings.

Sets are really one of the highlights of the youthful film producers. Scripts have been used calling for sets anywhere from a theatre to a large 18th century sailing vessel. In "Alice in Wonderland," there was a courtroom set which took more than a month to construct with a golden ceiling chandelier of 50 small candles (chandelier was constructed from an old candelabrum and matching sidewall brackets.) The courtroom was adorned in pale rich sky blue with gleaming white columns and woodwork, and old gold fixtures. Floor pattern was large red and white checks that had a smooth mirror-like surface; throne was elevated somewhat with circular steps and trial boxes with large hearts on the front, while a large window from floor to ceiling was behind the throne. Outside the gaping window was a mist of clouds which provided a spell of mystery.

"Treasure Island" is expected to be the most ambitious black-and-white film yet produced by the W. G. trio, with improved dramatic lighting and other techniques. Work has already been started on rough ideas on character creations and set suggestions for "Cinderella," their next production which is to be in color. It will be a super, with the budget expanded considerably for creation of the best in lighting, costuming and massive sets. Some of the latter already roughly

planned are a huge ballroom, a wedding scene, and the interior of a stage coach.

In "Alice in Wonderland," the trick of reversing the camera upside down was employed to shoot a scene of chartreuse mist of clouds in which a deck of cards were to rise up in the air and come flying down on Alice. The scene was photographed upside down, and later turned around and spliced in with the other shots originally made normally. This gave the desired effect of the cards flying up. The "falling machine," a background painted scroll that was rolled behind Alice, was successfully devised and employed to picture her falling through space.

Members of the company are most serious about their work, and never cease to expand production quarters and add to equipment. The office is a maze of neatly-typed scripts, set drawings, character sketches, half finished properties, and shelves of technical books and pamphlets. The W. G. sign is evident on almost everything—from the cameras and the door of the special projection room, to the smallest piece of equipment.

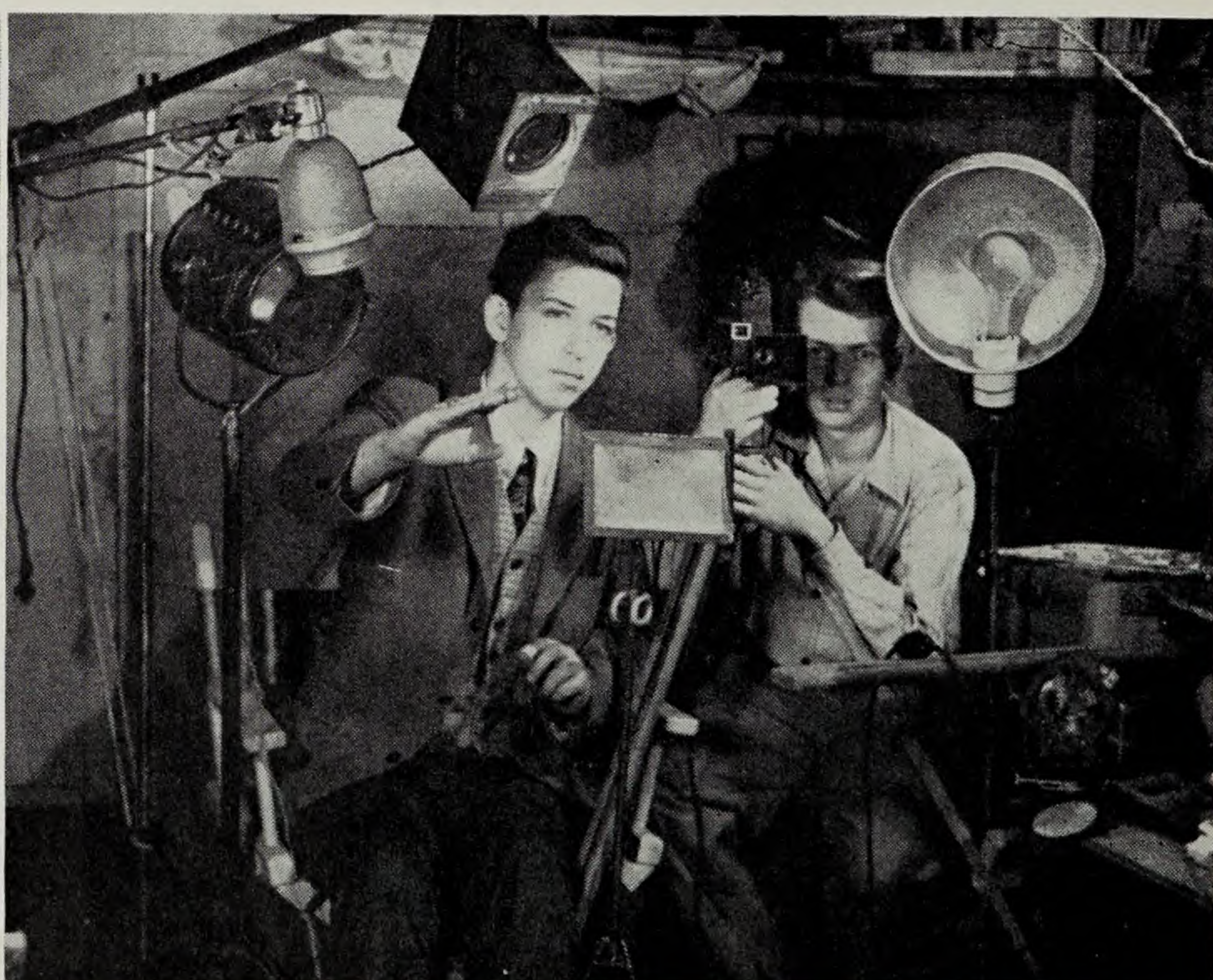
After the current "Treasure Island" is completed, production will start wheeling on "Cinderella." "The Selfish Giant" and a few original scripts are also tentative for future production activities.

It might be pointed out that the production accomplishment of the W. G. group is noteworthy. A local playhouse booked one of the pictures for a five-day showing with marked success, and there have been a number of invitations for out-of-town showings.

And what of the future? Ambitions of the company members are pointed towards Hollywood and honest-to-goodness jobs in the film industry as director-producer, cameraman, art and set director. In fact major league status for the chores each is now holding in the miniature movie firm of W. G. Productions in Nashville, Tenn.



Craig Faulkner, chief cameraman, editing film.



On the set of "Treasure Island."



# The DINKY BOOM

For Properly Lighting Motion Pictures,  
Home Movies, Portraits and  
Table-Top Photography

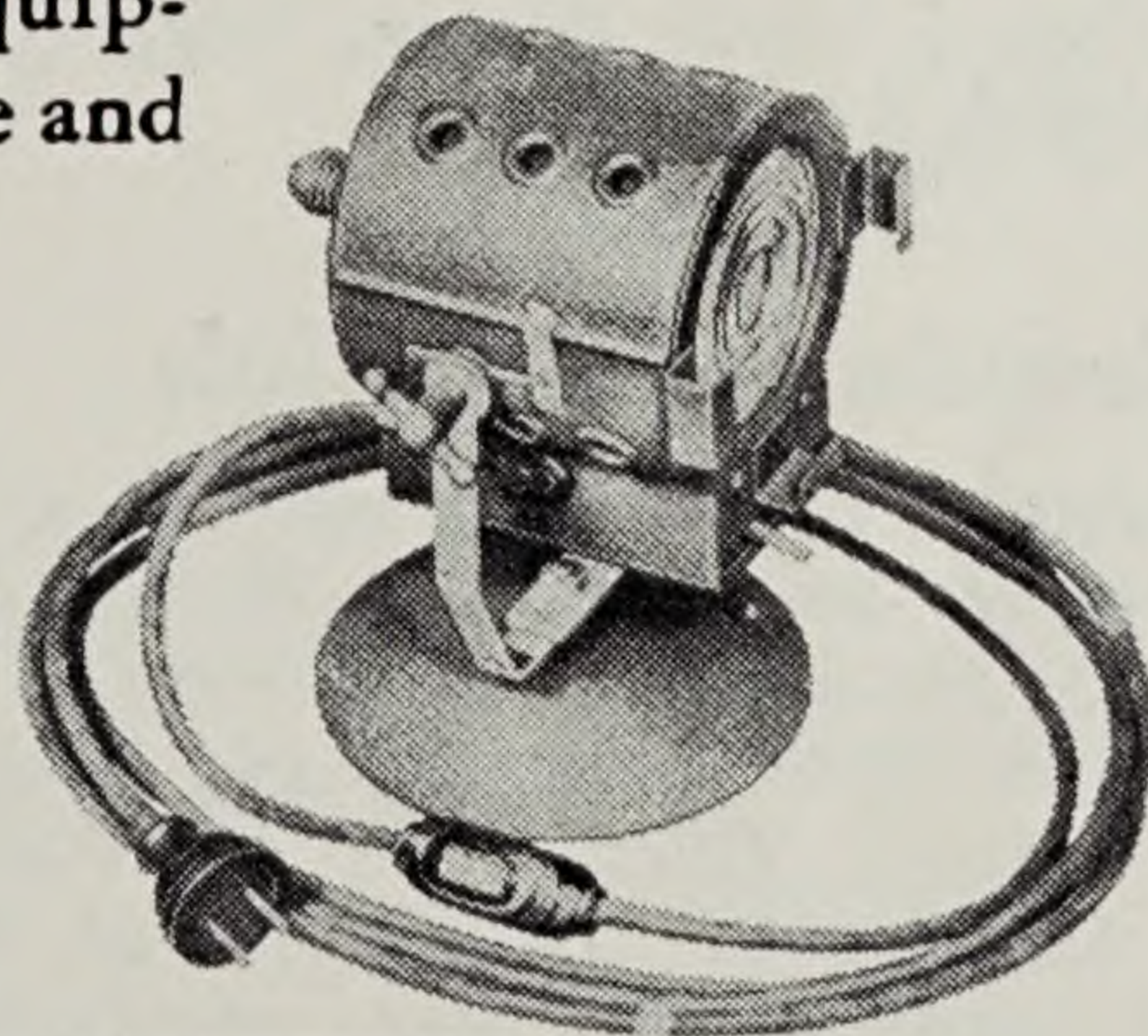
Something has been added...at the request of Hollywood Camera Men...to the Bardwell & McAlister line of Photographic Lighting Equipment ...It's the Dinky Boom!

On motion picture sets, among the home-movie fans, and everywhere that fine photography is produced, the Dinky Inkie, that handy little 150 Watt Spot, has been standard equipment. Now its use has been made much more flexible by the Dinky Boom which makes an infinite number of lighting arrangements and angles easy to obtain. The Dinky Boom comes equipped with a standard Dinky Inkie Spotlite.

With the Dinky Inkie you can highlight portrait subjects by concentrating a smooth, graduated light exactly where it belongs. You can get the greatest degree of flexibility in modeling close-ups. You can eliminate shadows in dark corners and virtually "paint" with light that is under control at all times.

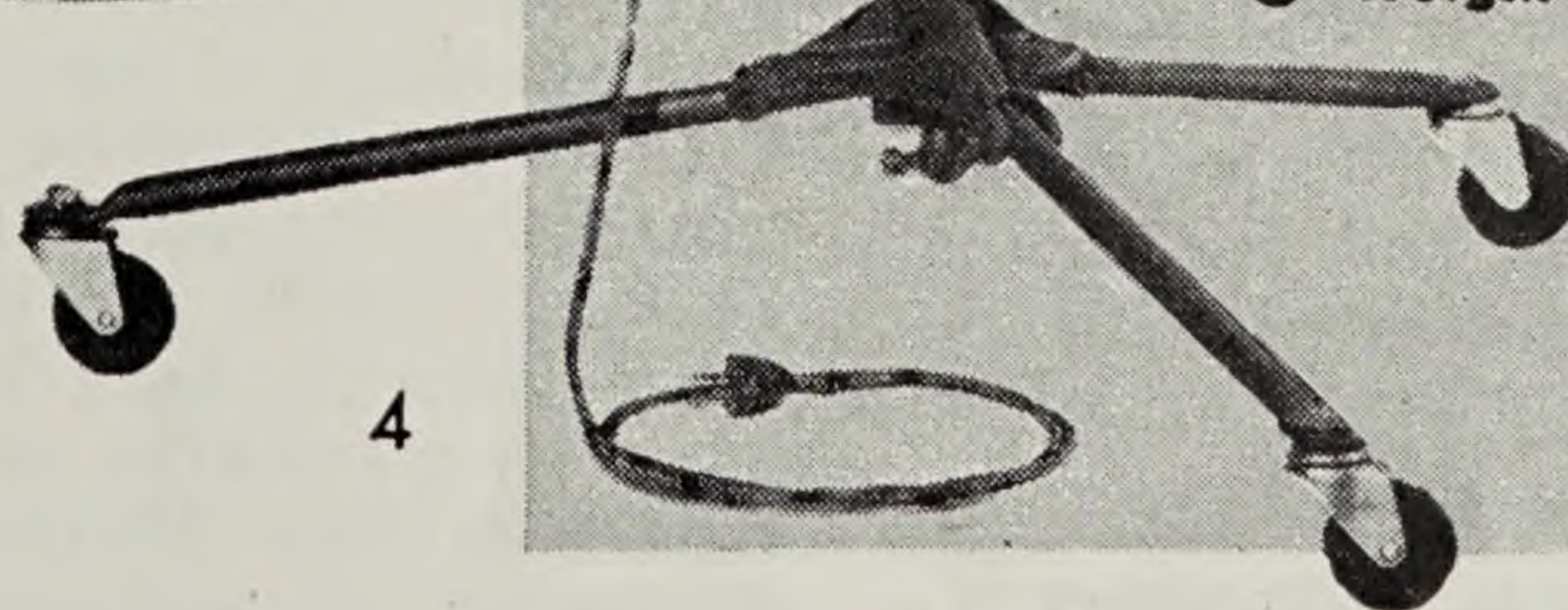
For fine photography there is nothing better than Bardwell & McAlister Lighting Equipment. For good work, the Dinky Inkie and the Dinky Booms are "musts".

*This wonderful little spot operates with 150 watt T-8-DC globe; focuses from an 8 degree spot to a 44 degree flood. It has the same back and front handy focusing lever as the Baby Keg-Lites. With base removed, it fits any standard tripod. Total weight 2¾ pounds.*



## Check These Features THE BOOM

- 1** Maintains constant angle of adjustment in all positions up to 45° angle from vertical.
- 2** Boom has telescoping extension.
- 3** Thrust bearing with fibre friction disc at balance point holds boom rigid in any position without making thumb-screw adjustments.
- 4** B & M folding-leg-type stand.
- 5** Nine foot six inch extension.
- 6** Weight 17 pounds.



Write for literature describing the Bardwell & McAlister line of Photographic Lighting Equipment. There is a light for every possible need. Ask about the Senior 5000-watt Spot, the Junior 1000-2000-watt Spot, the Baby Keg-Lite 500-750-watt Spot, the Single and Double Broads, the Foco-Spot, Snoots, Barndoors and other light control accessories. Address Department



**BARDWELL & McALISTER, Inc.**

Designers and Manufacturers

Box 1310 • Hollywood 28 • California





# AMONG THE MOVIE CLUBS

## Brooklyn Amateur Cine

Charles Coles delivered a talk on "Exposures and Exposure Meters" at the October 16th meeting of Brooklyn Amateur Cine Club, held at 1218 Union Street. Coles also showed two of his films, "Jasper Road" and "Outposts of the West." Other picture on the program was C. M. Booth's "Campers Paradise."

Brooklyn is lining up a Quiz program for a future meeting which could easily be adopted by other clubs for added interest and information of members. Brooklyn is soliciting questions from members on movie problems, and when sufficient number are received program will be staged at a meeting. Club roster will be divided in half, with the experts on one side being tossed the questions from the other group. Then the situation will be reversed, with the former questioners becoming the experts and question answerers. It looks like a swell idea that should click solidly as a new feature of club meetings.

Members of Brooklyn Amateur Cine walked off with the bulk of prizes at the recent Mineola Fair. Six BAC members entered 10 films in the Fair contest, and each film won an award. Recipients were, Sam Fass, Francis Sinclair, Herbert Erles, Horace Guthman, Charles Ross, and Charles Benjamin. Latter won three prizes, while Erles and Guthman tabbed two each.

## St. Louis Amateur

President Leslie Easterday chaired the October 11th meeting of Amateur Motion Picture Club of St. Louis, held at the Roosevelt hotel. Film program comprised: "New Orleans," 8mm. kodachrome by Irma Kaiser; "A Camera Widow's Revenge," 8mm. monochrome which is the latest production of Overland Movie Club of Overland, Mo.; and "Nantucket," 16mm. kodachrome by Russell Pansie, loaned by ACL film library.

Added attraction was educational session on titling, with Werner Henze, S. James Bialson, and C. E. Talbot speaking on various phases and methods of title making. Each illustrated with film clips.

## San Francisco Cinema

An all-club program of films highlighted the October 15th meeting of Cinema Club of San Francisco, held at the Women's City Club. Eric Unmack started proceedings with a talk on lighting, stressing artificial lighting for interiors and demonstrating with his own equipment. Films included: "Magic Mush," (8mm. kodachrome), by Unmack; "Shriner's Parade" by new member Gabriel M. Tabet; and "Everchanging California," a 1,000 foot 16 mm. kodachrome subject by Leon Gagne.

## Metropolitan Club

Regular meeting of Metropolitan Motion Picture Club of New York City was held on October 17th at Hotel Pennsylvania. Film program of the evening included: "Alpine Vixen," by Anchor O. Jensen, judged one of the 10 best of 1945; "Backyard Zoo," by Francis M. Spoonogle, a 1945 Honorable mention; "Worth Scouting For," by Al Morton, a 1945 Ten Best; "The Heavens Declare the Glory of God," by S. G. Lutz, a 1944 Ten Best; "Mr. X," by Norman Brown; and "Handling Casks With the Ford Truck."

Supplemental meeting on October 2nd presented George H. Espy of Weston Electric Co. who explained the proper use of the Weston meter for best results in both black-and-white and color. Espy illustrated his paper with stills in both black-and-white and color.

## Philadelphia Cinema

Philadelphia Cinema Club staged a triple-feature program for its meeting of October 8th, held at Franklin Institute. Gadget Night presented an interesting and informative exhibition-demonstration of movie making gadgets devised by members. Second attraction was a talk on timely suggestions about movie making, together with simple tricks that any enthusiast can adapt. Climax was films made by Fred A. Murray while in the armed services abroad. Murray's subject by-passed battle action entirely, and concentrated on the countryside of North Africa, Normandy, and England.

## Seattle Movie Club

"Redouble Trouble," produced as a club activity by Amateur Movie Society of Milwaukee, was presented at the October 8th meeting of Seattle Amateur Movie Club, held in Parish Hall of Church of the Epiphany. Interesting experiment was conducted, with showings of member films and audience noting questions on editing, titling, exposure, etc.; questionnaires were graded later, which provided average audience grade for each individual film rating. Other subjects on the program was report on Cine Workshop meeting, and discussion of doctoring vacation footage.

## Utah Cine Arts

Home movie night featured the October 16th meeting of Utah Cine Arts Club held at Teamster's Hall, with members running off 50 foot 8mm. and 100 foot 16mm. rolls of unfinished and untitled subjects for runoffs. "All Around the Town," by Lon Wadman of St. Louis Movie Club, was the film feature of the evening.

## Milwaukee Amateur

Amateur Movie Society of Milwaukee is one of those progressive clubs with such intense member interest that two meetings a month are held at the Red Arrow Club. Delegation from the Metro Movie Club of River Park, Ill., drove over to present two kodachrome subjects—"Reverie" and "Invisible Builder" for the October 9th meeting. Fred W. Kennert presented his 8mm. color subject, "Beautiful Colorado" at the October 23rd meeting.

Civic movie projects of club members are highlights in the AMS widespread activities. Mrs. Mortag made a picture "Girl Scouts at Day Camp" during the summer for the Girl Scout office of Milwaukee County; and followed this up with film record of the Civil Air Patrol of which her son is a member. Mrs. Gertrude Militzer and Miss Artha Rosche recently presented the film of the construction progress of the Junior Club of Milwaukee which was photographed by Norville Schield and other members of AMS.

## Los Angeles Cinema

Member P. L. (Jack) Goddard thrilled members of Los Angeles Cinema Club at the October 7th meeting held in Fine Arts Hall of Ebell Club, with his 16mm. travelogue, "Off The Beaten Track in Central Americas." Goddard, a recent president of the Adventurers Club of Los Angeles, went into untravelled jungles and mountains of Nicaragua, Guatemala and Mexico, with his son Jack to secure the sensational film. Added attraction at the session was a series of 35mm. kodachrome slides of "Zion, Bryce and Grand Canyon National Parks" presented by Aldis D. Waltz. According to club announcement, entries for the annual contest close November 15th.

## San Francisco Westwood

Executive Committee of Westwood Movie Club of San Francisco sponsored the surprise program for the September 27th meeting held in St. Francis Community Hall, with secretary Leo M. Kerkhof functioning as chairman.

Annual contest night will be held on November 29th, with prizes up for entries in both the 8 and 16mm. divisions. Westwood's School of movie instruction, which was instituted as supplemental meetings several months ago, had caught on with the general membership, and provides informative hints for movie making.

## New York Eight

October 21st meeting of New York Eight MM. Motion picture Club was held in Hotel Pennsylvania, with F. B. Embshoff's "The Seasons," featured film of the evening. In addition, several subjects of members were also shown.





Kodak

*it takes 3000 pictures  
in one second!*

**That's why the Eastman High-Speed Camera will prove of interest to many movie makers—of great value to some**

Movie makers doing advanced or specialized work—engineers, and others engaged in technical research—today have a direct approach to problems involving motion too fast for the human eye to register . . . thanks to the Eastman High-Speed Camera, Type III.

With it, they can take motion pictures at speeds adjustable from 1000 to 3000 frames a second . . . project them at 16 frames a second

## ***High-Speed Movies***

**. . . another important function of photography**

. . . magnify "action time" nearly 200-fold . . . see a whirl of blurred action as slow, clear, leisurely, continuous motion.

In the field of engineering, for example, you can see, study, and analyze vibration and chatter in machine elements . . . movements of fluids . . . flame phenomena . . . and many other types of motion that the eye cannot follow. Although engineering is the field in which the camera has found its widest application so far, its use could readily be extended to others.

Consider its possibilities in your own work. Perhaps many of the facts in a new, free booklet about the Eastman High-Speed Camera, Type III, will help you estimate these possibilities accurately. Address Eastman Kodak Company, Rochester 4, N. Y.



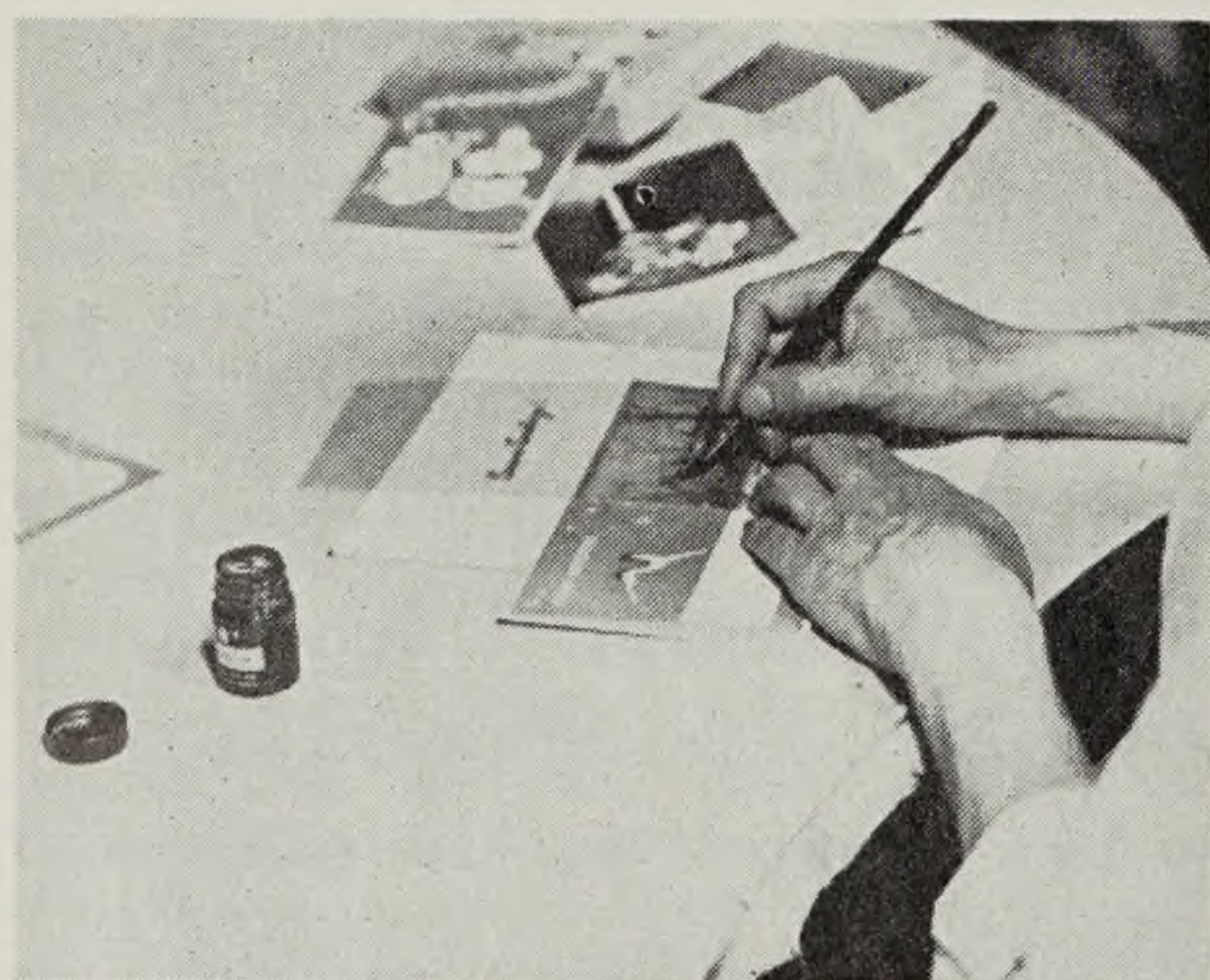
# Personalized Greeting Trailers for the Holidays

by JAMES R. OSWALD

**T**HIS year, more than ever before, the Christmas holidays are scheduled to hit a new high in the movie maker's calendar. With adequate film supplies again available to fulfill the cine fan's long-felt want, there is a great deal of lost time to be made up for, and the Yuletide season is the time to do it!

You will surely want to record, for instance, and in color, Junior's first glimpse of that shiny new, long-awaited streamlined electric train as he dashes over to the Christmas tree, and daughter's eager eyes as she first catches sight of her new bicycle, glistening under the tree lights . . . just the kind she has always wanted! Then there is Baby's overall bewilderment about the whole affair on this, a first Christmas. Oldsters, too, take part in the fun, and family reunions, merriment, and delicious delicacies for pampered appetites are the order of the day. Movie making opportunities galore present themselves from all sides throughout this festive period, and the serious cinematographer is ever on the alert for prize-winning catch-as-catch-can shots, as well as routine documentary scenes which will become a part of the general movie record of the occasion, to be projected and relived a year hence, undoubtedly with the participants forming the audience at that time.

But speaking of projection, what about *this* year's show? Maybe a well informed and gracious Santa Claus will see fit to fill your Christmas stocking, figuratively speaking, with a new projector, but new projector or old, the show must go on, for surely you, as an ardent cine fan,



In making a scroll, the wording is traced on a celluloid strip, from a pattern placed in the title OVER the chosen background scene, in such a way that the scroll may be drawn steadily upward, while the background remains fixed. For backgrounds in motion, the scroll may be lettered on black paper, and double-exposed in the customary fashion over the separate background scene.

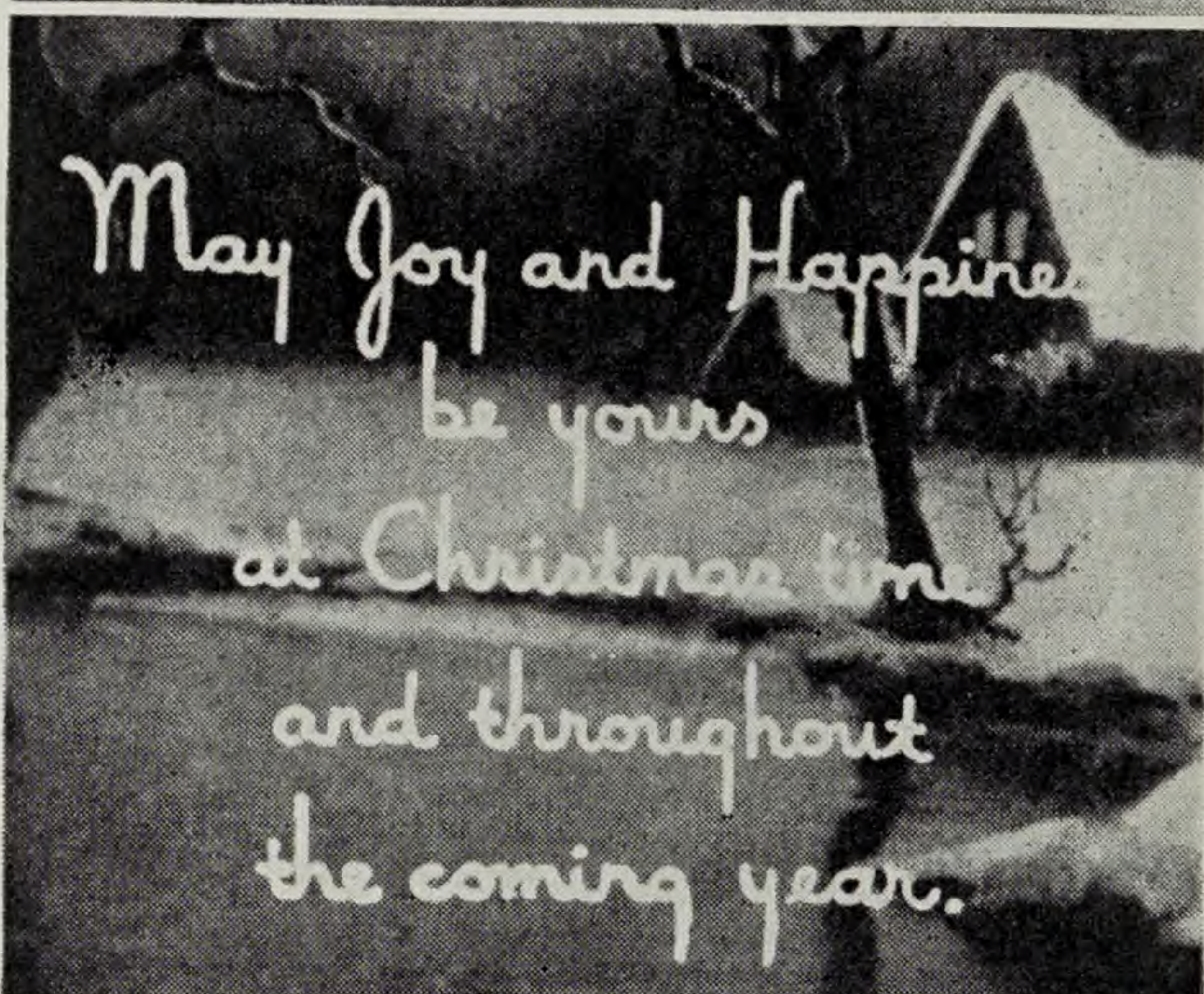
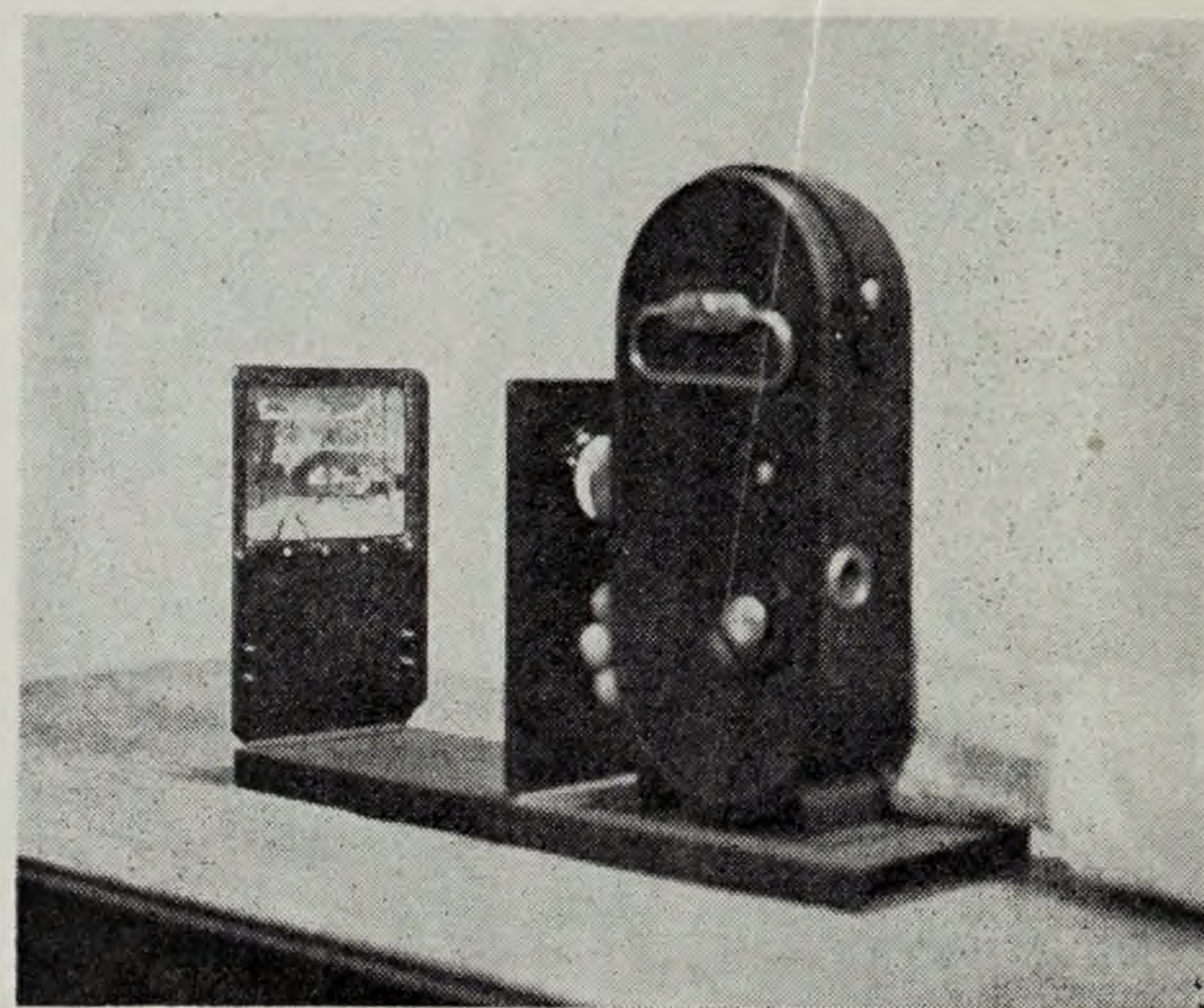
It's no trick at all to letter your own Christmas message over a favorite snapshot, using white ink, then photographing in your regular title-making equipment.

The easiest type of greeting trailer to make. Merely photograph, on-the-spot, an attractive, outdoor Christmas display, preferably after dark.

Another simple variety. Slip a conventional Christmas card into your titler, and expose in the normal manner.

More appealing. A snapshot of a familiar neighborhood street scene, lettered in white ink with the greeting, slipped in the titler, and filmed in the usual way.

Scrolls. Elaborate scrolls, in which a lengthy greeting moves continually upward as it is being read, while the background remains fixed, or in action, as the case may be, are possible by lettering the greeting on celluloid or paper strips.





cannot afford to disappoint your holiday guests by depriving them of a little movie entertainment on this joyous occasion. Even if you haven't taken any new pictures recently, there are always the old ones of a few years back which can be supplemented with some of the professionally made shorts.

Regardless, though, of how your film program shapes up, a good showman always has the welfare of his audience at heart, and every now and then takes time out to prove it by expressing his sentiments via the movie screen. Conveying Christmas messages in this unique, novel manner will not only promote a spirit of good will among your guests, but will add considerably to your reputation as a movie maker, as well.

The easiest type of greeting trailer to make is merely to photograph, on-the-spot, an attractive, outdoor Christmas display, preferably after dark. Another simple way to an attractive sentiment is to slip a conventional greeting card into your titler, and expose in the normal manner. But it's no trick at all to letter your own Christmas message in white ink over a favorite snapshot, then photographing as above. For trailers with an action background, superimpose the wording over an actual motion picture scene, first filming the action, then backwinding the film, double-exposing the title card, white lettering on black background. A "homey," indoor setting, in keeping with the season, is probably best for this type of trailer. Elaborate scrolls, in which a lengthy greeting moves continually upward as it is being read, while the background remains fixed, or in action, as the case may be, are possible by lettering the greeting on celluloid or paper strips. In making a scroll, the wording is traced on a celluloid strip, from a pattern placed underneath, after which it is arranged in the titler over the chosen background scene, in such a way that the scroll may be drawn steadily upward, while the background remains fixed. For backgrounds in motion, the scroll may be lettered on black paper, and double-exposed in the customary fashion over the separate background scene.

Personalized greeting trailers are not only fun to make, but fascinating to watch. Moreover, they may be as plain or elaborate as your artistic and technical ability allow. But always, these trailers convey your warmest Christmas sentiments. Why not surprise your audience, and include one in your holiday program this year?

## Sackett Heads Defender Plant

Frederick B. Sackett has been appointed manager of the Defender plant of DuPont Photo Products Department in Rochester, succeeding L. Dudley Field who will become the department's advisor on paper products. Sackett was transferred from the DuPont Parlin plant, where he was assistant manager for the past year.

# BALTAR

152mm  
f:2.7

100mm  
f:2.3

75mm  
f:2.3

50mm  
f:2.3

40mm  
f:2.3

35mm  
f:2.3

30mm  
f:2.3

25mm  
f:2.3

... for your specialized requirement

Baltar is the Bausch & Lomb answer to the demand for a lens series of superlative performance—both for color and black-and-white—to the exacting and specialized needs of the most advanced 35mm motion picture photography. Balcote anti-reflection coated. Bausch & Lomb Optical Co., 598 Smith St., Rochester 2, N. Y.

*Baltars are available through manufacturers of professional camera equipment.*

**BAUSCH & LOMB**  
ESTABLISHED 1853

## New Ampro 8mm. Projector

A new 8mm. projector for home movies, claimed to achieve a new standard of quality and ease of operation for 8mm. projectors, is offered by Ampro Corporation of Chicago, a General Precision Equipment Corporation subsidiary.

Features include 500-watt illumination, still picture and reverse operation, and flickerless pictures at slow speed.

Other highlights of this Ampro model A-8 projector are: 1" F 1.6 coated objective lens, one hand precision tilting control, automatic safety shutter, rheostat control for varying film speeds, full

400 foot reel capacity if desired, efficient cooling for forward or reverse projection, automatic reel locking device. The projector operates on both AC or DC 105-125 volts, and comes complete with lens, lamp, carrying case and accessories.

## La Casa, Alhambra

October 21st meeting of La Casa Movie Club of Alhambra instituted showings of series of vacation pictures made by club members. Films presented included: "Summer Wanderings," by Charles Manahan; and "Mexico" and "Appleblossom Time," by R. A. Battles.



## Filmo 'Electro' Camera for Time and Motion Study

To alleviate the pent-up demand for modern industrial engineering equipment, Bell & Howell Company announces the new Filmo "Electro" magazine-loading, electrically-driven, 16mm motion picture camera, according to J. H. McNabb, B & H president. Designed especially for accurate time and motion study work, the camera is equipped with a fast 21mm F 1.9 lens (with positive viewfinder and matching objective), which affords a somewhat wider angle of view than the standard 1" lens. Other features are a dial footage indicator, accurate operating speeds of 1,000, 2,000, and 4,000 frames per minute, and a built-in 24-volt motor which assures constant filming speed at all times.

Developed by Bell & Howell in co-op-

eration with Albert Ramond & Associates, industrial engineers with headquarters in Chicago, the new instrument embodies features demanded by industry in replies to a questionnaire circulated last year by the Ramond organization.

Simplicity and efficiency of operation render the Electro especially well-suited to accurate job study, it is claimed. The magazine-loading feature facilitates film change, and enables the operator to keep individual case records separate at all times. And with the magazine and the motor functioning as a team, 50 feet of film can be run off without interruption.

Of particular interest to industrial engineers is the calibration of picture

frequency (or camera speed) in multiples of a thousand frames per minute. Thus the individual pictures, or frames, are readily translated into terms of the "therblig" (.001 minute), the standard unit of measurement in job study work.

A transformer, which is standard equipment, permits plugging the Electro into any regular house line. Or, storage batteries can be employed when a job study must be filmed in a location where the unusual sources of current are lacking, thus making the Electro completely portable. The low-voltage electrical drive is equipped with an automatic governor mechanism which, Bell & Howell engineers state, will maintain accurately the all-important motor speed despite all except the most severe fluctuations in line current.

By no means confined to use as an industrial engineering instrument, the Electro can be employed for general types of cinematography as well, wherever electric power is available, either from standard lines or a portable battery. Company recreational and promotional events, amateur and professional football and baseball games, and race-track finishes represents only a few of the many applications. For conventional use, the Electro is available with speed control calibrated in frames per second; or the motion-study speeds are readily translated into frames per second by means of a simple conversion table.

Companion-pieces for the Electro are offered by Bell & Howell in the form of a specially-designed 16mm projector and a film viewer. The projector is equipped with hand-crank (for screening one frame of film at a time); a special heat filter, which permits any single frame to be projected as a "still" with even more brilliance than is afforded when the projector is running; and a direct-reading, geared frame counter which can be reset for "clocking" any portion of a job-study film.

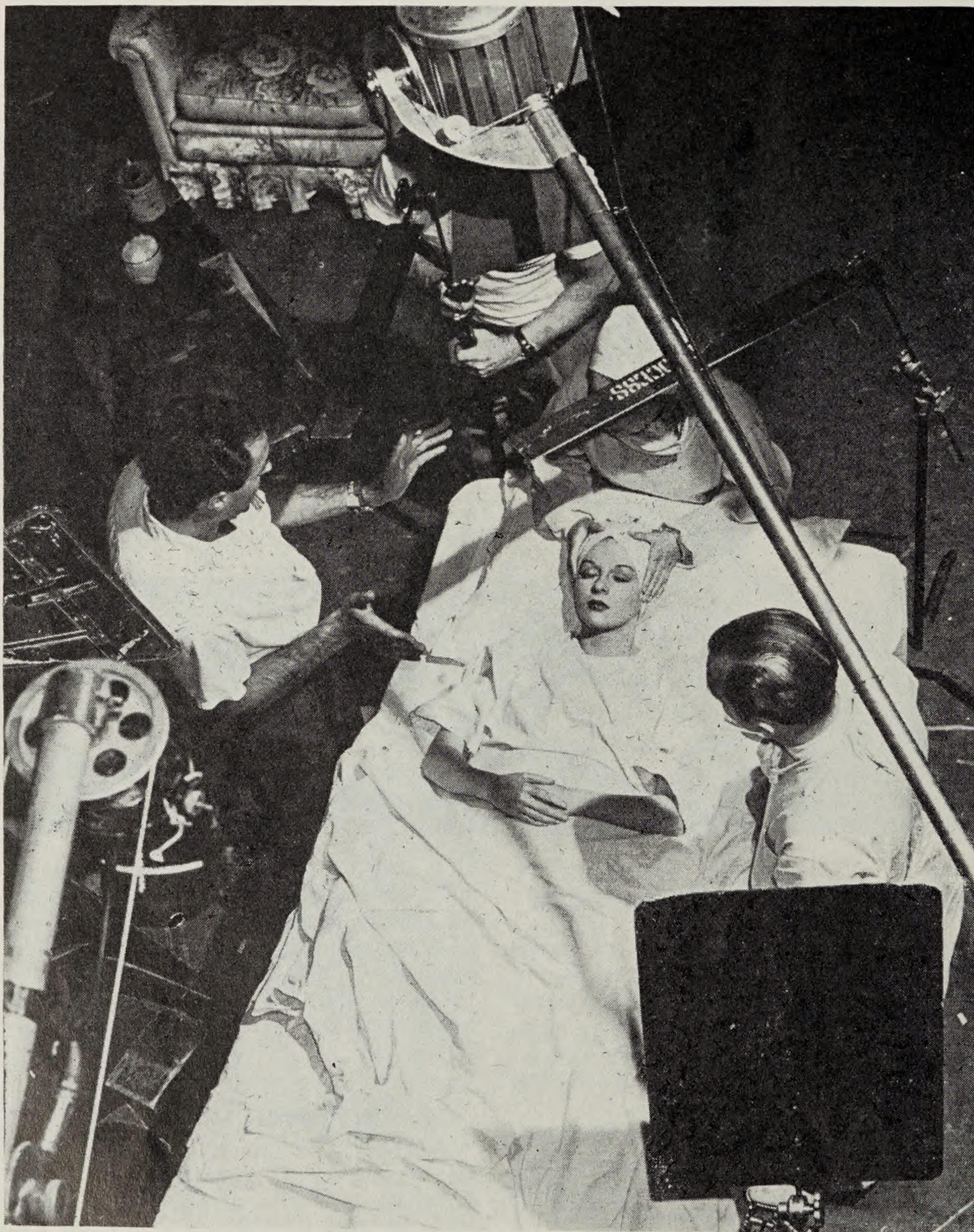
### RCA Appoints Two

Robert H. Hunt, has been appointed regional sales manager for RCA 16mm. equipment in the Chicago area, and Elmer H. Beneke to a similar position in the Atlanta region.

Hunt will represent RCA in the twelve mid-western states, replacing H. E. Erickson, who has been promoted to Assistant Manager of the Education and Sales Department at the Camden office. Beneke is replacing M. N. Heidenreich, who has been transferred to the Dallas regional office in the same capacity.

### Howard Telefilm Sales Head

George A. J. Howard, Jr., has joined Telefilm Studios as national sales manager, and goes East to supervise industrial film sales and close contracts with race tracks for Telefilm control horse race system. Howard resigned executive post with Pacific Air Lines to take the new post.



Director of Photography Stanley Cortez, A.S.C. has a specially designed light boom constructed for use in a difficult sequence for "Smash-Up," Walter Wanger production for Universal-International. Cortez is shown getting the proper lighting for a shot of Susan Hayward on the cot. Inkie spotlight is shown at top center of the picture on the end of the light boom. Via cables operated at the rear of boom, inkie can be swung in a 340 degree circle for difficult shots as shown.





## Will you shoot the turkey ?

**C**ONSIDERING some indoor shooting of the family turkey dinner this holiday season?

Then be sure your movie camera is loaded with Ansco Triple S Pan Film.

It's fast!

It captures deep-down shadow detail at practical lighting levels. It helps you get scenes of "professional" brilliance.

Triple S Pan's great speed lets you stop down when great depth of field is needed.

You'll keep the entire scene in sharp focus—very important when the enlarged images are viewed on the screen.

And Ansco Triple S Pan Film has a long scale of gradation . . . from twinkling highlights . . . to soft shadows. Try it. You'll see a noticeable improvement in your pictures. **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation. General Sales Offices, 11 West 42nd Street, New York 18, New York.

ASK FOR

*Ansco*

8 and 16mm

**TRIPLE S PAN FILM**



## S.M.P.E. Convention

(Continued from Page 396)

the SMPE for presentation to the individual or film company for the most outstanding contribution to the advancement of the technical or engineering art of motion pictures. It was also voted that the Society establish student chapters in universities and colleges where there is sufficient interest for such organizations.

### Price Welcomes SMPE

Byron Price, board chairman of the Association of Motion Picture Producers, was guest speaker of the opening luncheon which launched the convention. After recalling the early novelty of films, he stated, "If sound and color and other mechanical improvements had never been attained, the motion picture never would have survived except as a small sideshow of American life.

"Nor could the motion picture of the present day, with all its miraculous qualities, expect to survive if research simply stands on its hands, surrendering to smugness and dreaming that perfection had been attained. The effective capture of the third dimension alone provides a goal worthy of the endeavor of the best minds among you."

Mr. Price also disclosed that the major film companies already had preparations underway for a long-range and expanded research program, and general industry support is already assured for the project.

### Pertinent Papers

"Studio Production with Two-Color Bi-Pack Motion Picture Film," by John Boyle, A.S.C., and Benjamin Berg of Hal Roach Studios. The increased use of color in motion pictures has brought about a revival of the use of two color bi-pack processes. Although it has definite limitations in color range in comparison to the three color method, careful studies

and tests have enabled production of two color feature productions to an acceptable degree. With proper handling, allowance for sufficient production time, and close coordination between camera, makeup, art and wardrobe departments, the results secured on several features at Hal Roach studios are very adequate.

The entire production program of the Hal Roach Studios is in the two color process. With the entire product of the studio in color the technical departments have had the advantage of planning for the limitations of a two color system. This has enabled the studio to obtain the maximum possible from such a process.

A decided advantage for the Director of Photography has been the use of hard light and exterior type bi-pack film. This has not previously been a general practice with two color systems because of budget limitations. The paper detailed lighting techniques, makeup, set decoration, wardrobe, camera and other practices as devised after production of the Roach features made to date.

"Application of a New One Strip Color Separation Film in Motion Picture Production," by H. C. Harsh and J. S. Friedman of Ansco, Binghamton, N. Y. Paper described procedures to be used with the new Ansco type 155—which is designed for making color separation negatives. Equal gammas are obtained for the red, green and blue filter exposures with the same developing time, making it possible to obtain the black-and-white separations as successive frames on a single strip of film and thus obviate much of the difficulty of registration. By varying the developing time or developer formula, it is possible to change the gamma over a range of 0.5 to 3.0 to suite the purpose for which the separations are intended, while still maintaining equal graduations for the different filter exposures.

"The Physical Properties and Practical Application of the Zoomar Lens,"

by Frank G. Back of Research & Development Laboratory, New York. The Zoomar lens is a varifocal objective for motion picture cameras which achieves the change of focus by the linear movement of a single barrel (in which all the movable elements of the system are rigidly mounted.) The new feature of this lens consists in the principle of changing the focal length of the system by one group of lens components without consideration of the displacement of the image plane, while a second lens component, rigidly coupled to the first one by the common barrel, compensates for this displacement.

In correcting this system for the optical aberration, it has been discovered that the Deidel equations and the other formulae of the third order theory commonly used in preliminary lens design broke down entirely and new ways of corrections had to be devised.

The Zoomar lens not only makes it possible for the cameraman to take zoom shots on occasion where it was heretofore impossible due to the complicated preparations necessary for such shots, but it also opened the field for entirely new effects which could not be previously achieved.

Magnetic recording of sound came in for several papers on various aspects and developments of this medium, with indications that eventually such sound recording will be perfected for use on motion picture film, with chances that its economy features will be of especial interest to the amateur movie maker.

"Special Cameras and Flash Lamps for High-Speed Underwater Photography," by Robert T. Knapp, California Institute of Technology, Pasadena, Calif. The equipment described was developed for analyzing underwater motion of solid bodies. These studies are being carried out in a special tank, 30 feet long and 13 feet in diameter in the Hydrodynamics laboratory at Caltech. It operates with a water depth of about 10 feet. The experimental needs demand a high rate of picture taking, also that the object studied should be in the field of at least two cameras at all times. To meet speed requirements, the equipment is developed around Edgerton type flash lamps instead of a shutter mechanism. Special magazines have been designed using an endless film belt of sufficient length for a one second exposure time. Underwater coverage is obtained by a battery of five cameras operated from a single drive shaft. They are mounted with each lens at the center of curvature of a spherical window. A film speed of approximately 35 feet per second is used. A black background in the tank permits overlapping exposures. Illumination is furnished by a battery of 30 synchronized flash lamps operating at rates up to 3,000 per second.

### 16 mm. Subjects

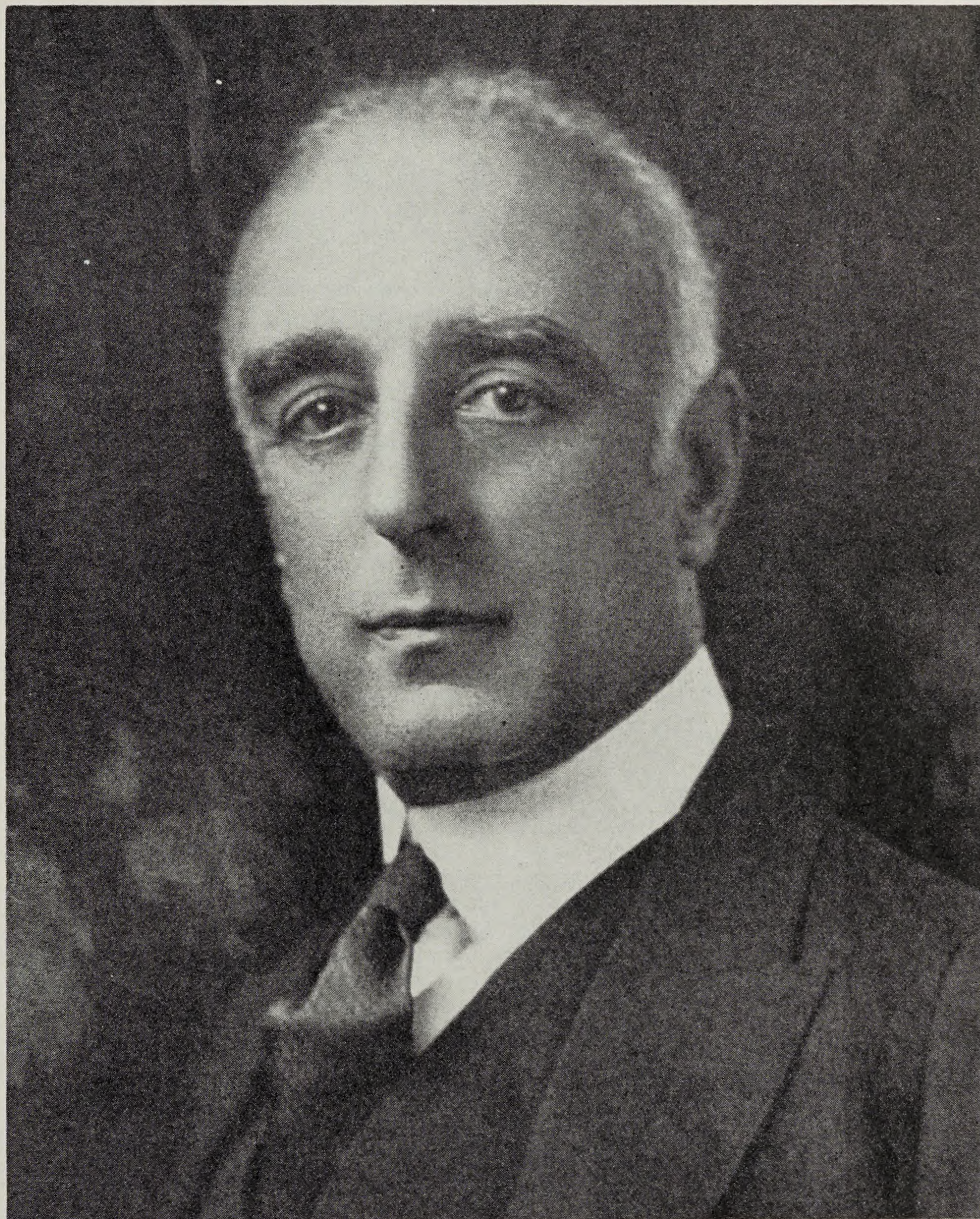
At the special session on 16 mm., highlights were paper and exhibit of the new Mitchell 16 Professional camera (de-

(Continued on Page 422)



Byron Price, board chairman of Association of Motion Picture Producers, predicts vastly increased engineering research program for the film industry to assure continuance of motion picture as a major public entertainment medium. Left to right: Joyce Reynolds, Warner player, President Don Hyndman; Price, and Nathan Golden.





## JULES E. BRULATOUR, A. S. C.

**T**HE motion picture industry lost one of its most enthusiastic and progressive leaders with the passing of Jules E. Brulatour at Mt. Sinai hospital, New York, on October 26th, after an illness of several weeks.

Pioneer in the sale and distribution of photographic supplies and products, Brulatour early had the vision and foresight to evaluate the tremendous potentialities of motion pictures as an entertainment medium for the world. And through the years, he was always in the forefront in pressing for introduction of new practices, and the constant improvement in the quality of motion picture productions.

As exclusive distributor of Eastman unexposed motion picture films since 1912, he has continually provided advice and counsel to producers and distributors, and numerous instances of his extension of financial aid to companies to assist the latter over tough hurdles, are well known within the trade.

His most friendly relationship with the motion picture cameramen from virtually the inception of the business, and his later personal campaign to raise the status and importance of the photographer in the eyes of the producer, can never be forgotten.

Arriving in New York in 1898, Mr. Brulatour shortly thereafter became sales manager for Lumiere of Paris, which at that time was manufacturing various photographic materials, including motion picture film. Even at that time, when moving pictures were novelties exhibited in tent shows and nickelodeons, he had unbounding confidence that here was the future mass entertainment medium, and he soon became an expert of the industry. It was this unbounding confidence and intimate industry knowledge that had the late George Eastman seek him out to take over American distribution of Eastman motion picture film; an association which has existed for 35 years.

Mr. Brulatour was born in New Orleans and educated at Tulane University. In the early years of the film industry, he was president of Motion Picture Sales Company, a group of independent producers and shortly thereafter an organizer and first president of Universal Film Company. When features were replacing the one and two reel shorts, he organized and built the Paragon and Peerless studios at Fort Lee, and was an original organizer of the old World Film Company; in addition to several laboratories. In later years, he was a member of the Paramount Pictures Corporation board of directors. He also was widely connected in banking circles, and was closely interested in philanthropic activities, particularly those relating to the motion picture industry. For efforts during World War I, he was awarded the Ribbon of the French Legion of Honor.

He is survived by his wife, Hope Hampton Brulatour, screen, stage and opera star; also three children by previous marriage, and nine grandchildren.

The American Society of Cinematographers sincerely regrets the passing of Jules E. Brulatour, one of the great men of the motion picture industry, and for many years an Honorary Member of the A. S. C.



## Aces of the Camera

(Continued from Page 395)

demic had launched Charlie Boyle on a successful career.

His first impressions of the picture business are, perhaps, best recorded in a poem he wrote after several excursions patterned after the Lone Pine trip:

When I got out of the army  
I looked for something to do;  
I came to California  
And joined a movie crew.  
But the job is just like the army,  
We don't get very much dough,  
But we see a lot of the country  
And they feed us wherever we go.

One of his most interesting experiences, in a career comfortably larded with interesting experiences, was the year he spent in the Philippine Islands. Hired as a cameraman by the Filipino Film Productions, a pioneer company in the islands, Charlie found himself, through force of circumstances, a producer as well. He arrived to find plenty of help, but no organization; willing workers but completely ignorant of the jobs they had to do. So Charlie took one boy and told him he was a 'grip,' and he explained what a grip had to do. To another he explained the duties of a propman. And so on through the whole complement of the production crafts. The boys were very proud of the titles he gave them, and for those whose jobs had no title he had to invent one. Under these conditions he photographed, and guided the destinies of nine pictures during the year of his stay.

In order to give you an idea of what the Philipinos thought of Charlie, and at the same time to convey some of the idiomatic quaintness that creeps into their expressions, we quote from an article published in the Manila "Herald Mid-Week Magazine" for August 21, 1935:

"Usually, it is about the stars that we read. Seldom do we read about the men behind the scenes, the tireless workers who turn the magic of the make-believe world into superb entertainment for us of the twentieth century. In Hollywood, as well as in the Philippines, the men behind the scenes are seldom brought to the limelight. And yet, they perform as important a part, if not a more important part, than the stars in the making of pictures.

"Last week, during the preview of 'Himala ni Bathala,' the newspapermen were unanimous in remarking: what a masterpiece of photography! Truly, they said, Filipino pictures have arrived. And they asked who the photographer was. And the answer was: Charles P. Boyle, A. S. C., studio manager of the Filipino Films Productions, pioneer makers of talking pictures in this country.

"Boyle, or Charlie for short, arrived here unheralded last May 7th. Of a naturally quiet disposition, he never bragged about himself. He moved about

unobtrusively, smiling only now and then in answer to greeting from persons who know him, and always tight as a clam.

"But when people began talking about the remarkable photography of 'Himala ni Bathala,' Boyle, upon the insistence of newspapermen, broke his silence. And to us revealed something that even dazzles us more than many stars of the shadowworld."

This laudatory account goes on and on to fill almost an entire page of the periodical, with pictures of Charlie reading a script, and another with him looking very authoritative next to a camera. It praises him personally and professionally, and by implication compares him to a composite of all the great names in the Hollywoods. But it failed to tell what it was that Charlie revealed when, 'at the insistence of newspapermen' he 'broke his silence' and 'dazzled them even more than many stars of the shadowworld.' And Charlie quite obviously took no offence at being labeled 'tight as a clam,' because he has preserved the article for posterity.

The Philipinos take their movies, and their movie industry, very seriously. In their pictures they indulge themselves to the full extent of the emotions and go into tremendous and lengthy detail in the telling of their stories so that the feature pictures run eleven reels and more in length. The dialogue is usually in the Tagalog dialect, and the stories generally concern themselves with events and themes that are most suitably interpreted by Philipinos and which can best take advantage of the native scenery.

One exception to this was the Filipino Films production of "The Miracle Man," which Charlie photographed. And he recalls that the Philipino actors, with their predilection for the broader type of emotional acting, had a field day with this vehicle.

When the production was previewed in Manila, Charlie noticed a large crowd gathered; not at the theatre, but about half a block away. And because the crowd kept getting bigger and bigger until it swelled way over the sidewalk, he felt he had to see what it was all about. When he had elbowed his way to a point of vantage he found the actor who had played the part that Lon Chaney made famous in the American production telling his eager and serious listeners how he had done it. Then he would illustrate a point by grimacing and contorting himself until he out-Chaneyed Chaney. Awed and spellbound, the crowd urged the actor to retell the story; which he did. And as those in the rear of the crowd surged forward he was again requested to repeat the performance. As Charlie emerged from a throng of real film fans he wondered if a similar idea wouldn't be a big attraction for Sid Grauman.

It was on this trip to Manila that Charlie met and married his wife. So

proud was she of her husband's professional skill in the realm of color that she could not be satisfied to cable her family that she had married a cameraman, she had to tell them she had married a 'color cameraman'; thereby causing considerable consternation until the folks had an opportunity to gaze on Charlie's purely Celtic physiognomy.

In 1937 Technicolor put Charlie under contract to train studio cameramen in the use of Technicolor cameras and film. He is still with that company and on assignment to major producers has contributed his talents to such outstanding pictures as "Jesse James," "Maryland," "Kentucky," "Buffalo Bill," "Northwest Passage," "Billy the Kid," and "Canyon Passage." In 1945, with Robert Planck, A. S. C., he was nominated for the color photography award for "Anchors Aweigh."

This year he has been assigned to "Duel in the Sun," and is currently shooting tests for Selznick's forthcoming production for Vanguard, "Little Women."

Some of the most beautiful color photography that Charlie has ever turned in however, is, oddly enough, to be seen in a commercially sponsored picture entitled "Men Make Steel." This is a four reel picture made in 1938 for the U. S. Steel Corporation. Shot on Technicolor 3-strip, which was then only half as fast as it is today, and with only 1,500 amps to call upon to light his sometimes immense sets, Charlie achieved some of the most awe-inspiring, thrilling beautiful photography which has at the same time captured and graphically reflected the spirit and feeling of the subject. Here is a picture that from a photographic standpoint definitely deserves a place in somebody's archives. And it's a wonderful illustration of what a good man can do with a camera.

## New B & M Accessories

With the development of fast photographic films, the control of light has become a real problem for the photographer. Light must be confined to definite areas and directed only where needed.

Bardwell & McAlister, Inc., of Hollywood, pioneers in photographic lighting equipment, manufacture a whole line of special accessories for this purpose. These practical working tools have been developed for use by motion picture and portrait photographers whose work requires quick and accurate means of controlling light for high quality results.

These accessories are for use with the famous B & M Spot Lights which range from the "Dinky Inkie" at 150 watts to the 5000 watt "Senior Spot." They include snoots, diffusers, barn doors and the B & M "Foco Spot" which not only concentrates light, but will even confine the spot to a variety of special shapes such as circles, squares, oblongs, etc.



## New Maurer 16

(Continued from Page 402)

more convenient method of focusing.

The standard gear-driven feed and take-up film magazines manufactured for Maurer equipment in the past will be used on the new Maurer Camera. 400-foot capacity film magazines will be standard, but 200-foot capacity and 1200-foot capacity film magazines will be made available. The 400-foot magazines take either 400-foot darkroom loading film on cores, or 100-foot and 200-foot daylight loading spools.

The new Maurer Camera is extremely quiet in operation. The camera gears run in a sealed chamber of grease, deadening most of the noise usually associated with camera operation. The camera motor is held in position on the righthand side of the camera by two mounting screws and is easily detached. Synchronous motors are supplied as standard equipment on all Maurer Cameras, although other motors are available. The camera with finder, motor and film magazine weighs only 28 pounds. Designed as the ideal camera for studio use, the Maurer Camera, because of the means provided for interchanging accessory equipment, can be used on location where space and weight

requirements become important considerations. A spring drive will be made available for use on the Maurer Camera. This drive will operate the Maurer Camera over a speed range of 8 f.p.s. to 64 f.p.s. The spring drive will eliminate the need for an electric power source in field work, as well as providing a method of operating the camera at other than 24 f.p.s. Equipped with a 200-foot film magazine and a spring drive the Maurer Camera can be taken into tight places where space limitations would make impossible photographing with larger equipment.

Professional equipment is a "must" for professional production. The new Maurer Camera will go a long way toward improving the quality of 16-mm cinematography, and enable the industry to realize its full potential.

## Bell & Howell Official Passes

Eric F. Carlson, widely known official with Bell & Howell for 18 years, died suddenly in Los Angeles on October 19th of a heart attack. He joined BH in 1928, and after a year at the Chicago headquarters served as eastern division sales manager in New York for a brief period, before taking over the post of western division sales manager at Hollywood in 1930.

## New Filmosound Releases

The following current 16mm. film releases are available from the Bell & Howell filmsound library:

THE LIFE CYCLE OF A PLANT—10 min.

A general study of a plant, in this case the Lupin, from seed to seed, including the processes of pollination and fertilization. College and senior high school. Produced by G. B. Instructional, Ltd., distributed by Bell & Howard.

BREATHING—10 min.

Some experiments in the chemical process of burning and oxygenation and illustrates by growing plants that oxygen is essential for life. Various methods of recording the inhalation and exhalation of breath are explained by moving diagrams. College and senior high school. Produced by G. B. Instructional, Ltd., distributed by Bell & Howell.

*Recreational*

FRISCO SAL (Universal)—7 reels

Sheltered Eastern girl seeks her brother on Barbary Coast, becomes a singer and reconciles and reforms deadly former enemies. (Susanna Foster, Turhan Bey, Alan Curtis, Andy Devine). Available from August 23, 1946, for approved non-theatrical audiences.



# Compare the Fonda Film Developer

## ALL SIX WAYS...

1. Low operating cost: — Fonda developing machines keep costs to a minimum.
2. Simplicity of control: — No involved training period necessary.
3. Quality of construction: — All stainless steel and made by a leading fabricator — Solar.
4. Automatic tension: — Patented *Fonda driving principle* regulates film slack.
5. Almost any speed range: — Develops film at the speed *you* specify.
6. Processes any type film: — 35mm, 16mm, color, black and white, positive, negative, reversal or microfilm.

FONDA FILM PROCESSING EQUIPMENT DIVISION

**SOLAR**  
STAINLESS PRODUCTS

SALES OFFICE: 8460 SANTA MONICA BLVD., LOS ANGELES 46, CALIFORNIA • FACTORY: SAN DIEGO



STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1879

Of THE AMERICAN CINEMATOGRAPHER published Monthly at Los Angeles, California for October 1, 1946.

State of California } ss.  
County of Los Angeles }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Walter R. Greene, who, having been duly sworn according to law, deposes and says that he is the Editor of the AMERICAN CINEMATOGRAPHER and that the following is, to be best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, A.S.C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif.; Editor, Walter R. Greene, 1782 N. Orange Dr., Hollywood 28, Calif.; Managing Editor, Walter R. Greene, 1782 N. Orange Dr., Hollywood 28, Calif.; Business Managers, Marguerite Duerr, 1782 N. Orange Dr., Hollywood 28, Calif.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) A.S.C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif., wholly owned by the American Society of Cinematographers, Inc., a non-profit corporation whose address is 1782 N. Orange Dr., Hollywood 28, Calif. Officers of the American Society of Cinematographers, Inc. are: President, Leonard Smith, Hollywood 28, Calif.; 1st Vice President, Leon Shamroy, Hollywood 28, Calif.; 2nd Vice President, Charles Rosher, Hollywood 28, Calif.; 3rd Vice President, Charles G. Clarke, Hollywood 28, Calif.; Secretary, Ray Rennahan, Hollywood 28, Calif.; Executive Vice President and Treasurer, Fred W. Jackman, Hollywood 28, Calif.; Sergeant-at-Arms, John W. Boyle, Hollywood 28, Calif.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceeding the date shown above is—(This information is required from publishers of daily, weekly, semi-weekly and triweekly publications only.)

WALTER R. GREENE  
Editor

Sworn to and subscribed before me this 12th day of October, 1946.

(Seal) Franklin H. Mills  
Notary Public

(My commission expires July 3, 1949).

## Acme Opens 16mm. Lab In Hollywood

Headed by executives and technicians with long experience in professional motion picture processing, Acme Film Laboratories, Inc., is opening a new and completely modern plant at 1161 North Highland Ave., Hollywood, to provide quality laboratories services to producers of 16 mm. films.

Gerson (Gus) Barth, as president, will handle sales and promotion. He has been closely associated with laboratories and films sales for the past 30 years both in New York and Hollywood, and leaves a long association with Ansco on the coast for the new enterprise.

Wilson Leahy, A.S.C., functions as vice president in charge of production. With background of 27 years experience in Hollywood studio and commercial laboratories, he was associated for more than 10 years with the technical motion picture department of Ansco—which he headed for three years prior to accepting a commission in the Navy in 1941. In service, Leahy was Division Officer in charge of motion picture processing at the U. S. Photo Science Laboratory at Anacostia, D. C.

Robert M. Grubel joins Acme as supervisor and chief engineer, and has had 10 years experience in color processing practices. During the war Grubel spent four years as a Photo Officer, and following return from overseas, was assigned photographic testing and research at the Proving Ground Command. In assembling its laboratory staff, Acme is engaging technicians with experience in the professional processing field.

### Latest Equipment

Latest equipment installed in the new building embracing 18,000 square feet includes: bottom drive, lateral shaft vertical type developing machines for most efficient operation; non-slip 16 mm. sound printers; automatic continuous color printers capable of color correc-

tion on individual scenes in cut originals for release printing; and dummy sound heads in projection rooms to allow for separate sound and picture projection.

Service delivered by the developing machines will include black-and-white reversal, in addition to standard release and daily prints, and fine grain long gradation negatives. Sound prints will also achieve maximum fidelity resulting from non-slip printing and optimum development. The 16 mm. color reproduction facilities will include both standard and low gradation type Kodachrome originals, with balancing of individual scenes.

### Process and Sound Available

Complete service of optical process and special effects, and sound recording facilities, will be available in the Acme building. These separate departments will be operated by engineers and technicians who have handled the same type of work in the major studios for 35 mm. productions. A sound stage ample for dubbing, orchestration and production purposes, and fully equipped cutting rooms, are also available under the one roof.

In establishing Acme Laboratories, Barth and Leahy foresee greatly expanding activities in commercial and industrial 16 mm. production, and feel that this branch of the industry deserves availability of the same precision methods of processing and related factors as are current for the high quality negatives and prints turned out by the major producers in Hollywood.

### October Cover Credit

G. R. Ritchie photographed the still on the set of "Unconquered," which was our cover picture for the October issue. Credit for this fine shot was inadvertently omitted from the caption.

## New! TELEFILM'S "Lok-On" Flange



Used by Leading Hollywood 16mm Editors and Producers for Editing and Re-winding

It's Telefilm's latest 16mm. time saver! Sides are of heavy gauge clear plastic. Engraved footage scale on inside surface shows amount of film on spool. One side removable—so you save time by slipping on film without winding. Nothing ever like it for winding short lengths of film into coils quickly, without endangering emulsion surfaces. Outer side has specially-made locking device, allowing removal of film by means of a simple lock. Core takes standard lab pack spools, fits a standard 16 or 35 mm. rewind.

### TRY IT 10 DAYS — MONEY BACK!

May be purchased complete, 8 inch size \$17.50 or 9½ inch size \$18.50, or the face side with spool may be purchased separately at half above prices. Immediate delivery. Use it 10 days then money back if not delighted.

**TELEFILM INC.**

**HOLLYWOOD 16mm HEADQUARTERS**  
6039 Hollywood Blvd., Hollywood 28, Calif.



## Kodachrome Introduced Commercial Type 16mm.

**E**ASTMAN Kodak is immediately introducing a new type (5262) commercial 16 mm. Kodachrome film, designed to provide a low contrast color original from which a color release print (or prints) of good quality can be made on Kodachrome duplicating film.

Company announcement states: "Kodachrome commercial film is color balanced for a color temperature of 3200° K. Mazda 3200° K lamps are recommended. This film can also be used in daylight with the newly introduced Wratten filter No. 83, and with photoflood and Mazda C. P. lamps with the Kodak CC14 filter.

"In order to obtain the most uniform quality from one emulsion to the next, emulsion filters of the Kodak CC Filter Series may be necessary in some cases. Information printed on the film carton specifies the required filter, if any. If a combination of two emulsion filters is required and if photoflood lamps are used, then the Kodak CC13 rather than the CC14 filter should be used.

"The same exposure recommendations are made for this film as for Kodachrome Film, Type A. Exposure indexes and exposure tables are given in the data sheet provided. Exposure latitude of Kodachrome commercial film is somewhat greater than that of Type A film, and the contrast is lower. The extra exposure latitude insures proper gradation of highlights and shadows and should not be used to absorb avoidable exposure errors. The exposure and subject contrast should be adjusted to give highlight densities not less than 0.45 to 0.50, and shadow densities not greater than 1.8 to 2.0. Such highlights and shadow densities are not appropriate to good projection; but a duplicate from such a film has lighter highlights, higher contrast, and projects well.

"Since variations in over-all color rendition may be increased slightly on duplication, it is well to avoid slight roll-to-roll variations. For this reason, all the film for the production at hand should have the same emulsion number and should be obtained at the same time. If exposed rolls must be held several weeks or longer, they should be protected from high humidity, and in hot weather should be refrigerated. Films should never be stored in automobiles.

"The low contrast original on Kodachrome commercial film is not intended for projection. Its contrast is purposely low so that the contrast obtainable in its duplicate is comparable with the contrast of a good original made on Koda-

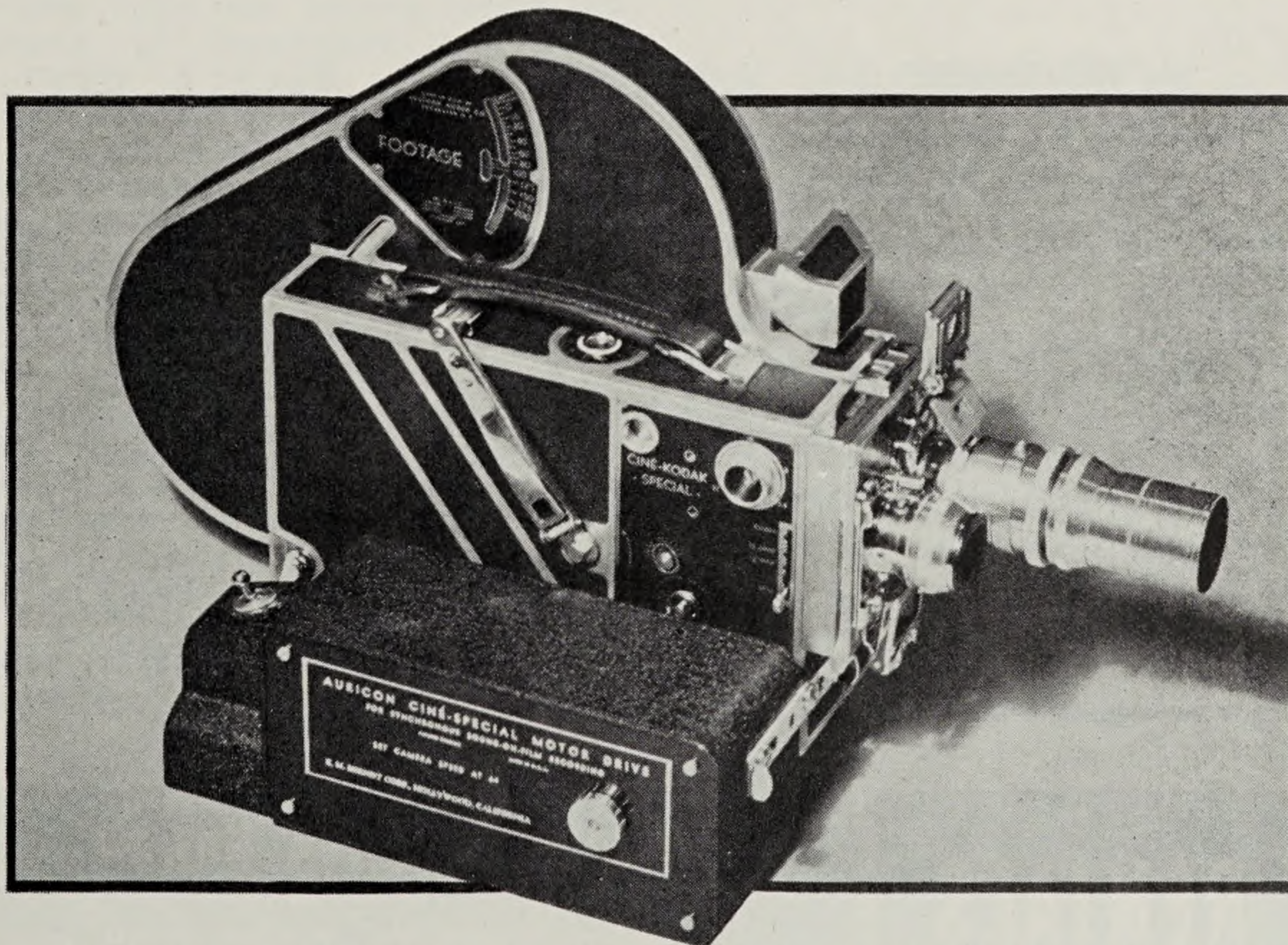
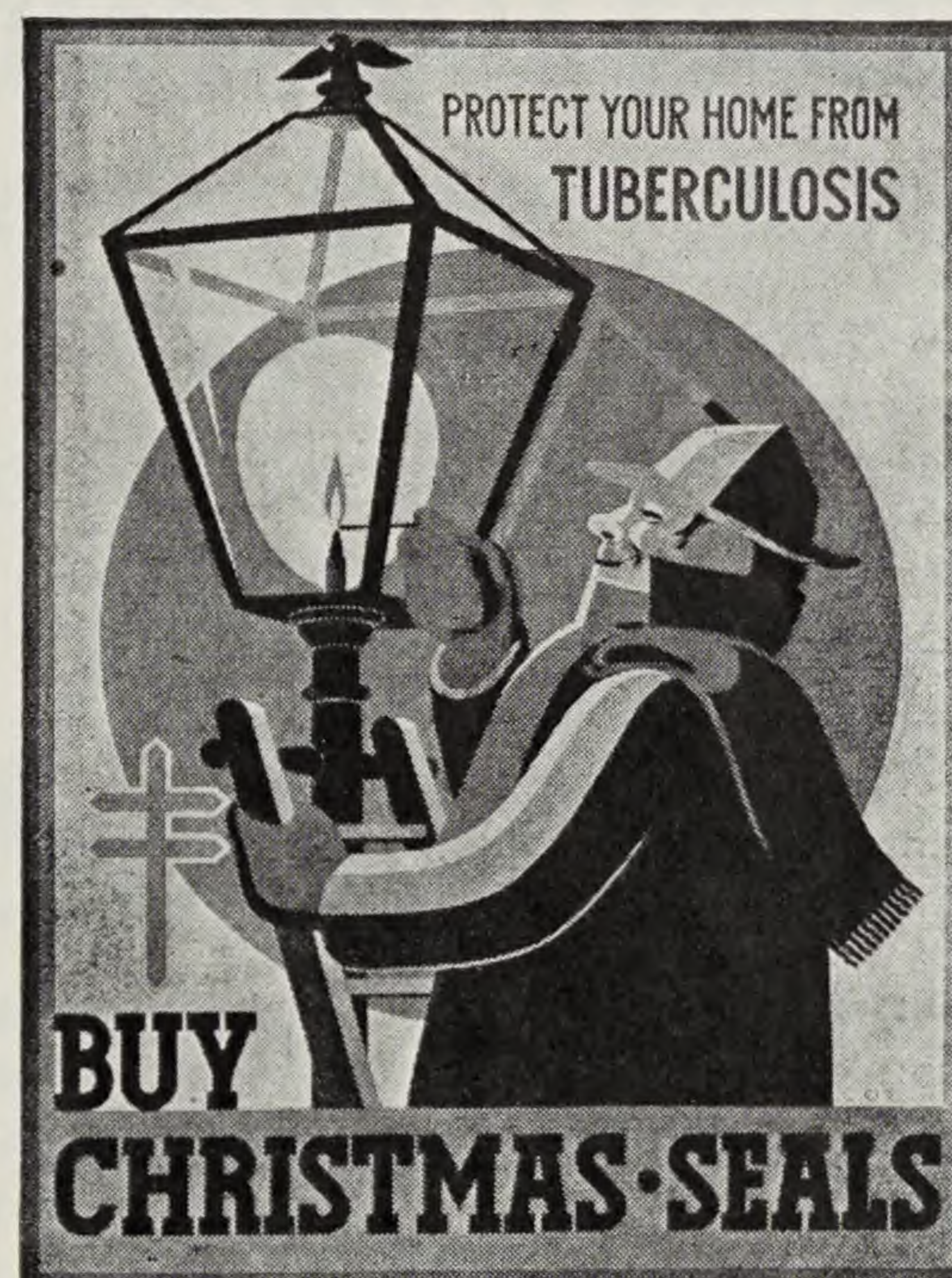
chrome type A. The original may also show a color cast, i.e., its rendering of neutral colors may depart from neutral. This is done purposely in the interest of making good duplicates. Therefore, the color quality of the original should be judged from its color duplicate. With experience, it may be possible to judge an original for color quality. Kodachrome commercial film requires special processing, and should be returned—either in the original carton or otherwise packed and clearly identified as commercial film type. Kodak processing stations at Rochester, Chicago, Los Angeles, and Flushing, N. Y. are equipped to handle this film. At the present time, only the Rochester laboratories are equipped to furnish daily print service in supplying duplicates from this film."

### Lens Deal for Sweden

Bausch & Lomb Optical Company has joined with Aga-Baltic Ab of Sweden in formation of Aga-Bausch & Lamb Ab for distribution of B&L scientific and optical lenses and instruments in Sweden and Finland.

### Victor in British Tie-Up

The Victor Animatograph line of motion picture projectors and sound equipment will be manufactured in England by Salford Electrical Instruments, Ltd. of Manchester according to deal recently negotiated by the two companies. Salford will follow the quality specifications and standards of Victor in turning out projectors and accessories for sale and distribution in Europe and Africa.



### AURICON CINE-SPECIAL MOTOR DRIVE

provides synchronous 24 frame a second camera operation from 115 volt, 60 cycle A.C., or the Auricon Portable Power Supply. (50 cycle drive also available.) Can be used with "double system" sound-on-film recording equipment for making synchronized talking pictures. Prompt delivery. Price \$145.00

**E. M. BERNDT CORP.** 7377 BEVERLY BOULEVARD  
LOS ANGELES 36, CALIFORNIA

MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931

**8 Enlarged TO 16 Reduced TO 8**

**Geo. W. Colburn Laboratory**  
Special Motion Picture Printing  
164 NORTH WACKER DRIVE  
CHICAGO 6, ILL.



## New Photographic Firm

David M. Klein and Walter N. New, both war veterans, have formed Aurora Industries, Inc., in Chicago for the design and manufacture of photographic specialties. Initial products are portable screens.

## "GOERZ AMERICAN" PRECISION PHOTO LENSES

An American Product Since 1899

46 YEARS IN THE FRONT LINE OF  
PHOTO-OPTICAL EQUIPMENT

Because of their excellence in performance in all branches of photography, in war or peace, the demand for them has tremendously increased.

It will still take quite some time to fill our heavy backlog of orders, for so many different types and sizes, and build up our war-depleted stock for prompt shipment to the dealers all over.

To assure yourself of the earliest possible delivery we urge you to place NOW through your dealer your order for the lens you have selected. You will be repaid for your patience manifold with the satisfaction derived from its use later.

### REMEMBER:

For making first-class pictures, a  
"GOERZ AMERICAN"

lens will give you a lifetime of pleasure

## The C. P. GOERZ AMERICAN

OPTICAL COMPANY

OFFICE AND FACTORY

317 East 34th St., New York 16, N. Y.

AC-11



Executives of Victor Animatograph Corporation and some of its distributors who attended recent sales conference in Chicago.

## ASC Resumes Technical Meetings

American Society of Cinematographers resumed its regular monthly technical meetings at the Hollywood clubhouse on October 28th, with program lined up by Charles Clarke, A. S. C., and John Boyle, A. S. C., comprising an excellent selection of papers and demonstrations. Because of requirement of wartime secrecy and other factors, the technical sessions had to be suspended for the past several years. Meetings will be arranged for the first Monday of each month henceforth. A large turnout of members and guests greeted the initial session, which was chairmaned by Charles Clarke.

Dr. W. B. Rayton, A. S. C., of Bausch & Lomb Optical Co., Rochester, gave a most informative talk on coated lenses as applied to motion picture photography. A large selection of slides illustrated the paper. A demonstration film of the Zoomar lens was exhibited, and H. T. Souther followed with a slide-illustrated paper on "Composition in Motion Pictures." John A. Maurer then gave a brief talk on the new Maurer professional 16 mm. motion picture camera, and had one of the latter on display for the members to look over following the meeting's close.

Through the courtesy of W. D. Buckingham of Western Union Electronics

Division, equipment was loaned to briefly demonstrate the new concentrated-arc lamp developed by WU research laboratories; and general consensus was that the lamp could be utilized for obtaining special and unusual lighting effects in professional motion picture photography.

It was fortunate that the initial ASC technical meeting followed the close of the SMPE convention, which allowed for the appearance of Dr. Rayton and Mr. Maurer on the program.

## S.M.P.E. Convention

(Continued from Page 416)

scribed in American Cinematographer, October, 1946) and "A New Series of Camera Lenses for 16 mm. Cinematography," by W. B. Rayton of Bausch & Lomb Optical Co., Rochester, N. Y. The latter highly informative technical paper will be republished as soon as it is available. Allen Jacobs of Calvin Company, Kansas City, delivered a paper on the past lack of adequate equipment for the making of sound on 16 mm., which is becoming more important with the wider use of 16 mm. for commercial and industrial firms. R. H. Talbot of Eastman Kodak presented an informative paper on "A Method for Determining the Shape of the Focal Surface in 16 mm. Projection."

### Wider Film Uses

From the wide variety of papers presented at the convention, the professional and amateur film producer and enthusiasts will shortly have many new and startling methods, tools and advance designed equipment to greatly enhance the technical qualities of motion pictures.

In addition, general consensus indicates the growing spread of motion pictures into wide fields of heretofore unthought of activities and functions.

(Editor's Note: Virtually the complete list of papers as presented appeared in last month's issue of American Cinematographer.)

**RENTALS  
SALES  
SERVICE**

**Mitchell—Bell & Howell**  
(USED) (USED)

Standard, Silenced, N.C., Hi-Speed, Process,  
and Eyemo Cameras.

Fearless Blimps and Panoram Dollies —  
Synchronizers — Moviolas  
35mm Double System Recording Equipment —  
Cutting Room Equipment

WE SPECIALIZE in REPAIR WORK on  
MITCHELL and BELL & HOWELL CAMERAS

Cable CINEQUIP  
Circle 6-5080

**CAMERA EQUIPMENT CO.**

FRANK C. ZUCKER

1600 BROADWAY NEW YORK CITY



## Cinema Workshop

(Continued from Page 404)

shouting at your players, as that is the surest way to jolt them out of the mood.

The cameraman has *slated* the scene, and now you call for a *take*. The lights are brought up to full illumination for the scene. The actors take their places. Your assistant will shout "Quiet," several times (not to provide atmosphere, but to be sure no extraneous sounds are picked up by the microphone). You alert your actors with a ready-cue, then say "Camera!" to the operator. The camera starts rolling, and there is an interval of a few seconds before the sound apparatus reaches full recording speed. When it does, the sound man will say: "Speed!" You will then say: "Action!" to your actors, and they will begin acting out the scene.

While the scene is being shot, you carefully watch the action, notice the way the dialogue is delivered, and check for pace and tempo. When the scene has run its course, you say "Cut" and the action ceases. You then ask the cameraman if the take was all right for the camera. If, by some miracle, the first take was perfect, you tell the script clerk to "Print that one," and she will make a note of it to be referred to when the film is processed.

If, however (as is usually the case), something is not quite right in the way the scene was executed, you will briefly discuss the shortcoming with the person responsible and then call for another take. The scene is repeated (depending upon the latitude of the budget, of course), until you and the cameraman are both satisfied that it is as near perfect as any scene will ever be. You both proceed to the next scene indicated on the shooting schedule.

### The Summing Up

As the above production outline implies, smooth functioning on the set depends upon two things: pre-planning and close co-operation between cast and crew. Pre-planning means that the director and his technicians have taken the time to foresee all eventualities that might develop, and have planned accordingly. In this way, there is little waste of time, money, and effort.

The importance of co-operation cannot be over-emphasized. If the personnel working on the picture will all pull together and work in harmony for the good of the film, if they are big enough to place the picture's success ahead of personal ego—then the results are bound to show up favorably on the screen.

Another good rule (paraphrasing the Boy Scout motto) is: "Be Prepared for Anything." Arrange your schedule so that if any unexpected hold-up occurs, you can "shoot around" it. Always have on the set a kit containing such things as thread, pins, nails, tape, paper, pencils, glue, aspirin tablets, razor blades, etc. You never can tell when one of

these small items will save the day on the set.

The specific problems of outdoor shooting and location trips include transportation, waiting for sunlight, and provisions for the meals and the physical comfort of the personnel. If these factors are well thought out in advance, shooting is sure to proceed much more smoothly.

Having detailed on-the-set procedure, we are now ready to go on to our next important phase of production.

NEXT ISSUE: *Exterior Shooting.*

## AnSCO Expands Research

Expansion of the general research department of AnSCO results in promotions and additions to the staff. Dr. Herman Hoerlin heads the newly-created post of manager of physics research laboratory, while Dr. Frank J. Kaszuba becomes manager of the chemistry research laboratory. Another new classification is added with the promotion of Dr. Gustav A. Wieseahn and Ronald H. Bingham to function as research specialists.

Dr. William L. Wasley, formerly assistant professor of chemistry at Washington University, St. Louis, joins the research staff in capacity of a research group leader. Simultaneously, Dr. Benjamin R. Harriman, Dr. Thomas R. Thompson, and Monroe H. Sweet are promoted to ranks of research group leaders.



**Bass**  
**pays**  
**CASH!**  
for your Camera and Equipment

**I want to buy your**

- Contax
- Leica
- Graphic or
- Miniature
- Camera

Send it in . . . merchandise returned postpaid if not entirely satisfied.

**Bass Camera Co.**  
179 W. MADISON ST.,  
CHICAGO 2, ILL.

**Don't Forget to Buy**  
**CHRISTMAS SEALS**  
**This Year**

**FOR LIGHT ON EASTERN PRODUCTION --**

**C. ROSS**

**For Lighting Equipment**

**As sole distributors East of the Mississippi we carry the full and complete line of latest-type Inkie and H.I.-Arc equipment manufactured by**



**MOLE-RICHARDSON, Inc.**

**Hollywood - California**



**Your requirements for interior or exterior locations taken care of to the last minute detail anywhere**



**MOTOR GENERATOR TRUCKS**

**RENTALS**

**SALES**

**SERVICE**



**CHARLES ROSS, Inc.**

**333 West 52nd St., New York, N.Y.**

**Phones: Circle 6-5470-1**



# Current Assignments of A.S.C. Members

As this issue of American Cinematographer goes to press, members of the A.S.C. were engaged as Directors of Photography in the Hollywood studios as follows:

## EYEMO CAMERAS

Single lens F2.5 models, model K's, compact turret, model Q focusing, 3 lenses, motor, positive finders, 400 foot magazines, tripod, case. Stock of fast Astro and Meyer lenses, 25mm. to 12". Eyemax 6" F4.5 lenses, \$64.50 each. Arriflex 200 foot motor driven 35mm. camera, tachometer, Hi-Hat, 12 volt lightweight plastic battery, case with fittings, tripod complete. Choice of fast Astro, Meyer, Sonnar and Biotar coated lenses.

Akeley camera motor, 6 volt. Akeley 35mm. matched Carl Zeiss F3.5 lenses.

Two smallest, lightweight, motorized internal 200 foot magazine newsreel 35mm. cameras with built-in 6 volt motor, dissolving shutter, automatic turret, direct focusing, tachometer, fast Astro and Meyer lenses, complete.

Mitchell type, silent 1000 foot 35mm. cameras, adapted for Mitchell magazines with F1.9, F2.3 Astro lenses, 12 volt motor, free head tripod, direct focusing, rackover ground glass, dissolving shutter, tachometer, like brand new.

Akeley Camera, Complete

Weston No. 614 studio foot candle meters, new, \$51.00.

Weston Master II, and G. E. Exposure Meters, new, immediate delivery.

35mm. De Vry 1000 foot, 1000 watt, type E S F, sound on film projector, amplifier, cables, complete, like new.

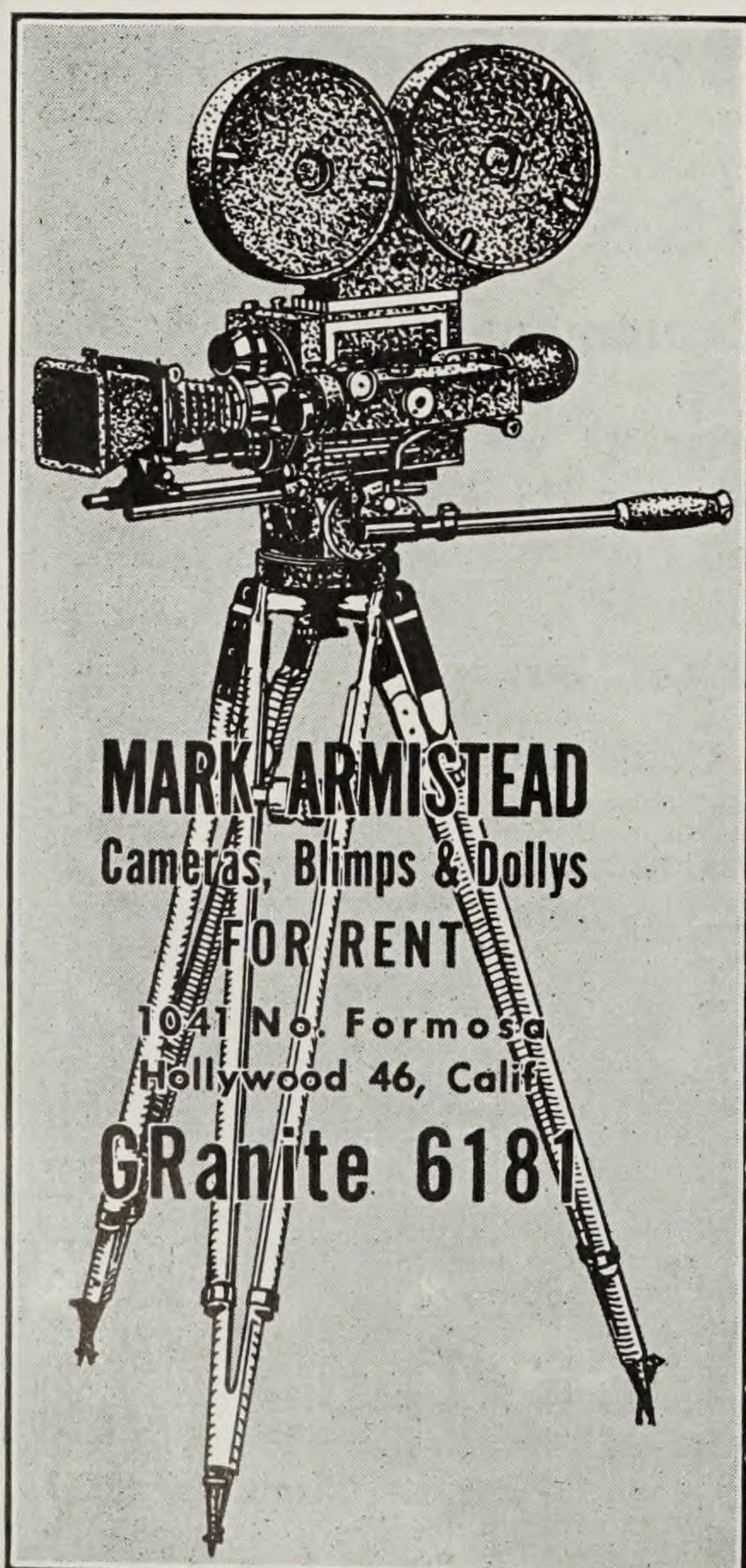
35mm. Moviola, Model D

WE BUY, TRADE, REPAIR, DESIGN 16MM. EQUIPMENT TO YOUR ORDER.

## CAMERAMART

70 WEST 45TH STREET NEW YORK

Cable: CAMERAMART



### Columbia

Joseph Walker, "The Guilt of Janet Ames," with Rosalind Russell, Melvyn Douglas, Sid Caesar.

Burnett Guffey, "They Walk Alone," with Glenn Ford, Janis Carter, Edgar Buchanan, Barry Sullivan, Karen Morley.

Fred Jackman, Jr., "Twin Sombremos" (Cinecolor), with Randolph Scott, Barbara Britton, Bruce Cabot, Grant Withers.

Charles Lawton, Jr., "The Lady From Shanghai," with Rita Hayworth, Orson Welles, Glenn Anders.

George Meehan, "Millie's Daughter," with Gladys George, Gay Nelson.

### Enterprise

Russell Metty, "Arch of Triumph," with Ingrid Bergman, Charles Boyer, Ruth Warrick, Michael Chekhov.

Victor Milner, "The Other Love," with Barbara Stanwyck, David Niven, Robert Stack.

### Metro-Goldwyn-Mayer

Robert Surtees, "Unfinished Dance" (Technicolor), with Margaret O'Brien, Cyd Charisse, Danny Thomas.

Hal Rosson, "To Kiss and Keep," with Gene Kelly, Marie McDonald, Charles Winninger, Spring Byington.

Robert Planck, "It Happened in Brooklyn," with Frank Sinatra, Kathryn Grayson, Peter Lawford, Jimmy Durante.

Sidney Wagner, "The Romance of Rosy Ridge," with Van Johnson, Thomas Mitchell, Marshall Thompson, Guy Kibbe.

George Folsey, "Green Dolphin Street," with Lana Turner, Van Heflin, Donna Reed, Edmund Gwenn, Reginald Owen.

Charles Rosher, "The Personal Touch," with Lionel Barrymore, Edward Arnold, Lucille Bremer, James Craig, Keye Luke.

Charles Salerno, "Undercover Maisie," with Ann Sothorn, Barry Nelson, Mark Daniels.

### Paramount

Ray Rennahan, "Unconquered" (Technicolor), with Gary Cooper, Paulette Goddard, Howard da Silva, Cecil Kellaway, Ward Bond, Katherine DeMille, Boris Karloff.

Charles Lang, "Desert Town" (Hal Wallis Prod.) (Technicolor), with John Hodiak, Elizabeth Scott, Burt Lancaster, Mary Astor.

John Seitz, "The Big Haircut," with Alan Ladd, Dorothy Lamour, Robert Preston, Lloyd Nolan.

Lionel Linden, "Variety Girl," with Mary Hatcher, Olga San Juan, DeForest Kelley.

### PRC

Virgil Miller, "Red Stallion," with Robert Paige, Noreen Nash.

### RKO

Sol Polito, "A Time to Kill" (Hakim-Litvak Prod.), with Henry Fonda, Barbara Bel Geddes, Vincent Price, Ann Dvorak.

Archie Stout, "Tarzan and the Huntress" (Sol Lesser Prod.), with Johnny

Weismuller, Brenda Joyce, John Sheffield, Patricia Morison.

Jack Mackenzie, "Thunder Mountain," with Tim Holt, Richard Martin, Martha Hyer.

### Republic

Tony Gaudio, "Gallant Man," with Don Ameche, Catherine McLeod, Rosco Karns.

### 20th Century-Fox

Norbert Brodine, "Boomerang," with Dana Andrews, Frank Latimore, Jane Wyatt, Lee J. Cobb.

Harry Jackson, "Mother Wore Tights," (Technicolor), with Betty Grable, Dan Dailey, Peggy Ann Garner, William Frawley.

Leon Shamroy, "Forever Amber" (Technicolor), with Linda Darnell, Cornel Wilde, Richard Greene, George Sanders.

### United Artists

Franz Planer, "Vendetta" (California Pictures), with DeGeorge, Faith Domergue, Hillary Brooke, Nigel Bruce, J. Carroll Naish.

Russell Harlan, "Red River" (Monte- rey Prod.), with John Wayne, Montgomery Clift, Walter Brennan, John Ireland.

John Boyle, "Who Killed 'Doc' Robin" (Hal Roach Prod.) (Cinecolor), with Virginia Grey, Don Castle, George Zucco.

Lucien Andriot, "New Orleans" (Majestic Prods.), with Arturo de Cordova, Dorothy Patrick, Marjorie Lord, Irene Rich.

William Daniels, "Personal Column" (Hunt Stromberg Prod.), with George Sanders, Lucille Ball, Cedric Hardwicke.

### Universal-International

Milton Krasner, "The Egg and I," with Claudette Colbert, Fred MacMurray, Marjorie Main, Louise Allbritton.

### Warners

Joseph Valentine, "Possessed," with Joan Crawford, Van Heflin, Raymond Massey, Geraldine Brooks.

Wesley Anderson, "Love and Learn," with Jack Carson, Robert Hutton, Martha Vickers, Janis Paige.

Peverell Marley, "Night Unto Night," with Viveca Lindfors, Ronald Reagan, Osa Massen, Brod Crawford.

Arthur Edson and William Skall, "My Wild Irish Rose" (Technicolor), with Dennis Morgan, Andrea King, Arlene Dahl, Alan Hale, George Tobias, George O'Brien.

Carl Guthrie, "The Woman in White," with Alexis Smith, Eleanor Parker, Sydney Greenstreet.

Ted McCord, "Deep Valley," with Dane Clark, Ida Lupino, Wayne Morris.

## GE Issues Dmitri Tips

"Tips on Better Color Pictures," by Ivan Dmitri, has been issued in color-illustrated booklet by General Electric Company. Although primarily designed for the still color photographer, amateur movie makers will find it interesting and informative in their field also.



## MGM Subjective Feature

(Continued from Page 401)

In the sequences where Montgomery appears before the mirror, the main problem was to couple the movements of the camera with his movements as he approached or withdrew, and to maintain his "point of view" without picking up the reflection of the camera. The result was accomplished by precisely keying the action to the camera stops, and by setting the mirrors into their frames at a slight angle.

Set lighting, also, presented difficulties not encountered in the average picture. Because the camera had to move so fluidly about the set, very few floor lighting units could be used. Most of the lights had to be mounted overhead, some even being hung by ropes in the center of the set.

The entirely different conception of picture required the players to look directly into the lens as they spoke their lines, a practice which in any other type of film would be strictly taboo. Also, since there could be very few cuts in the picture, scenes frequently ran as long as eight minutes per take.

For operating cameraman Jimmy Harper, the assignment was a spirited challenge. Like all first-rate operators, he had always been careful to frame and center compositions precisely, and to use only the smoothest type of camera movement. In "Lady," however, he frequently had to let his compositions go berserk in order to simulate the temporarily unbalanced viewpoint of the main character. Also, a good deal of the camera movement had to be more-or-less erratic in order to duplicate the eye movements of the detective.

Summing up the camera problems on the picture, cinematographer Vogel says: "Our biggest headache on a film like this was to accomplish all the required effects without calling the audience's attention to the mechanics of the techniques involved. Everyone working on the picture had to adopt a completely fresh point of view. We had constantly to think in terms of camera."

### Sound Goes Subjective

But the headaches didn't stop in the camera department. The sound boys had their hands full trying to pick up dia-

logue as the camera went careening about huge areas of set. Often it was necessary to use as many as six microphones strategically placed and concealed. Where the "mikes" were suspended from conventional booms, the added problem of multiple microphone shadows presented itself.

Sound perspective was also a factor to be reckoned with. Montgomery recorded most of his dialogue into a portable microphone set up next to his director's chair off-scene. In the final dubbing, his voice was piped in a bit more loudly than the others in order to make the sound seem closer and more intimate, thus pointing up the subjective effect.

Preliminary previews of the film have drawn highly enthusiastic audience reaction, and it is likely that the nation's filmgoers will respond favorably to a picture such as this and is actually an experience to watch. To the cinema technician it will come as a special treat, since it establishes a unique concept of picture-making and tends to prove that there is, indeed, something new under the Hollywood sun.

## 167th Signal Corps Company Publishes Combat History

A most complete and comprehensive history of the activities of the 167th Signal Photographic Company, United States Signal Corps, U. S. Army, has been issued in a 150 page book compiled by the group.

Generally, there's at least a five or ten year lapse between the disbanding of a company before someone interested gets the urge to round up a history. But the boys of the 167th stepped right in early this year, when both information, memories and pictures were available for the compilation.

Tribute is paid to the commanding officer, Captain Merle Chamberlain, of Metro - Goldwyn - Mayer studios; and through breezy writing and a wealth of pictures, the training, maneuvers, and detailed action of various units overseas with the 12th U. A. Army are neatly described. For the members of the 167th, the history must be one of the most prized possessions of the association.

## EVERYTHING PHOTOGRAPHIC AND CINEMATIC

### FOR PROFESSIONAL AND AMATEUR

The World's Largest Variety of Cameras and Projectors. Studio and Laboratory Equipment with Latest Improvements as Used in the Hollywood Studios. New and Used. BARGAINS.

### Hollywood Camera Exchange

1600 CAHUENGA BOULEVARD  
HO 3651 Hollywood, California Cable Hocamex



**MOVIOLA**  
FILM EDITING EQUIPMENT  
Used in Every Major Studio  
Illustrated Literature on Request  
Manufactured by  
**MOVIOLA MANUFACTURING CO.**  
1451 Gordon Street Hollywood 28, Calif.

## RUBY CAMERA EXCHANGE

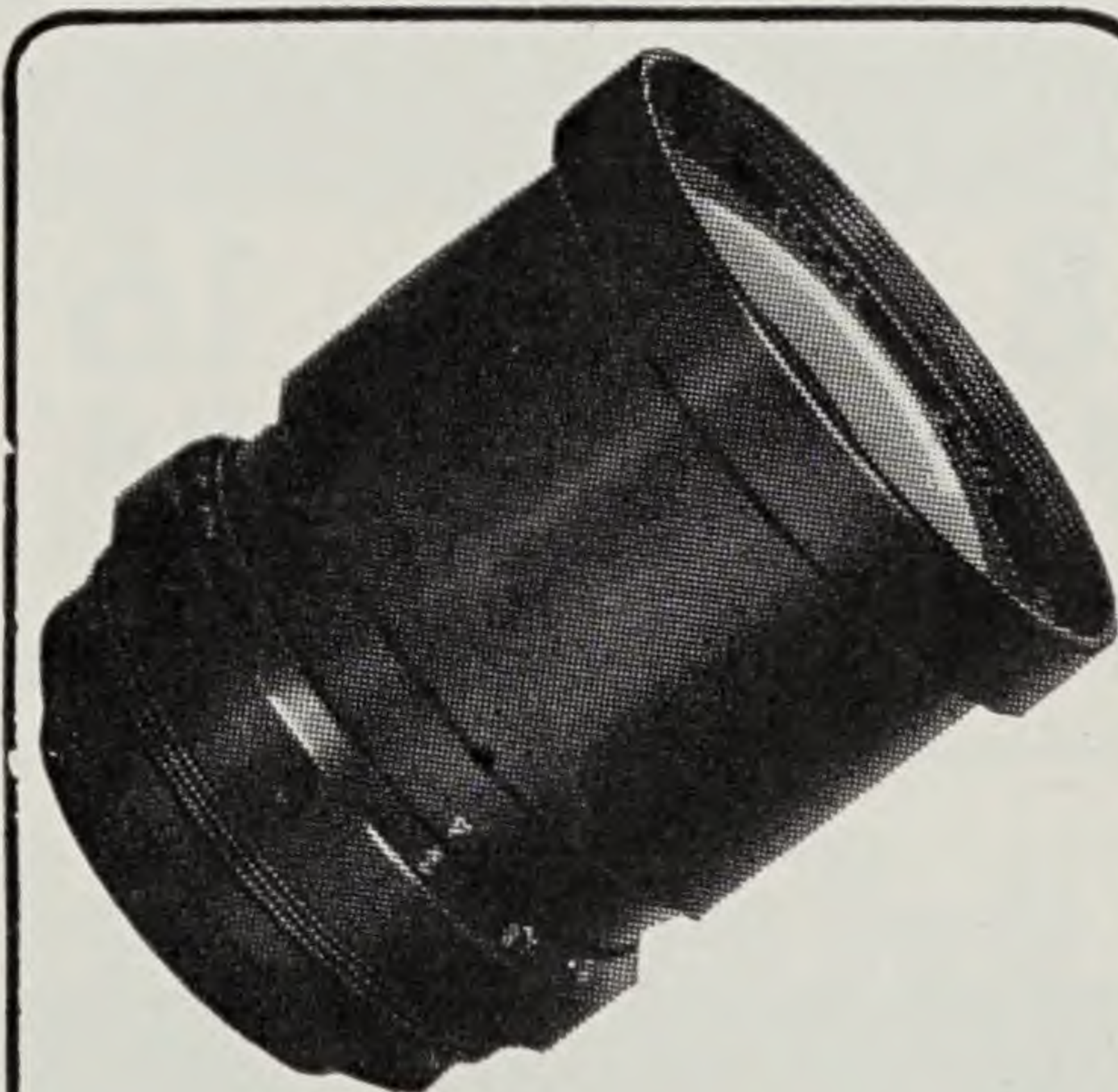
*Rents...Sells...Exchanges*

Everything You Need for the  
**PRODUCTION & PROJECTION**  
of Motion Pictures Provided  
by a Veteran Organization  
of Specialists

35 mm. . . . . 16 mm.

IN BUSINESS SINCE 1910

729 Seventh Ave., New York City  
Cable Address: RUBYCAME



### THIS "EYE" SEES INTO THE FUTURE

B&H Taylor-Hobson-Cooke Ciné Lenses do more than meet current technical demands. They exceed them—and their design anticipates future improvements in film emulsions. They are THE long-term investment lenses. Write for literature.

### BELL & HOWELL COMPANY

Exclusive world distributors  
1849 Larchmont Avenue, Chicago  
New York: 30 Rockefeller Plaza  
Hollywood: 716 N. LaBrea Ave.  
Washington, D. C.: 1221 G St., N. W.  
London: 13-14 Great Castle St.

BUY VICTORY BONDS



## Birmingham's International Open Exhibition Set

Birmingham Photographic Society of Birmingham, England, will present its 51st annual International Open Exhibition February 1st to 15th, 1947; with entries to be judged by Alexander Keighley, Hon. F. R. P. S. Information and entry forms may be secured from Vernon Bates, A. R. P. S., 41 Spies Lane, Birmingham, 32, by those interested in submitting prints and slides. Entries close January 7th.

## Spangler Represents Telefilm

Ralf M. Spangler & Associates of Hollywood have again been appointed national advertising and publicity representatives of Telefilm Studios Inc., 16mm, film studios of Hollywood, for the coming year.

## Telefilm Expands Color Dept.

Telefilm Studios has doubled its capacity for color release printing, new facilities and equipment being completed under supervision of chief research engineer Lloyd N. Christenson.

# McKINLEY

PHOTO LABORATORIES

5005 Hollywood Blvd., Hollywood, 27

8  
MM

CAMERAS  
PROJECTORS  
ACCESSORIES  
FILM

16  
MM

Still Processing • Photo Finishing

## Sound Services, Inc.

1021 Seward St.  
Hollywood 38, Calif.

COMPLETE  
SOUND SERVICE  
FOR THE  
INDEPENDENT  
PRODUCER  
35 MM.—16 MM.

## Western Electric RECORDING

# Classified Advertising

## FOR SALE

WE BUY, SELL AND RENT PROFESSIONAL AND 16mm EQUIPMENT, NEW AND USED. WE ARE DISTRIBUTORS FOR ALL LEADING MANUFACTURERS. RUBY CAMERA EXCHANGE, 729 Seventh Ave., New York City. Established since 1910.

BARGAIN LENS SPECIALS for use on Eyemo Cameras: 1" F:4.5 Bell & Howell Wide Angle Anastigmat in fixed mount—\$59.50; 1" F:2.3 Kinar Wide Angle in focusing mount (Similar to B&L Baltar)—\$99.50; 2 1/4" F:1.5 Schneider Xenon in focusing mount, coated—\$224.50; 2" F:2 Schneider Xenon in focusing mount, coated—\$118.00; 3" F:2 Steinheil Anastigmat in focusing mount, coated—\$119.50; 3" F:3.8 Schneider Tele-Xenar in focusing mount, coated—\$95.00; 3 1/2" F:2.5 Optis Anastigmat in focusing mount, coated—\$99.50; 3 1/2" F:1.8 Erneman Ernostar in focusing mount, coated—\$199.50; 4" F:3.8 Schneider Tele-Xenar in focusing mount, coated—\$129.50; 5" F:2.3 Schneider Xenar in focusing mount, coated—\$325.00; 5" F:2.3 Astro Pan Tachar in focusing mount, coated—\$343.75; 5 1/4" F:3.5 Erneman Ernion in focusing mount, coated—\$144.50; 6" F:1.8 Astro Pan Tachar in focusing mount, coated—\$445.00; 6" F:2.3 Astro Pan Tachar in focusing mount, coated—\$365.00; 7" F:3.5 Erneman Ernion in focusing mount, coated—\$118.00; 10" F:4.5 Bell & Howell Anastigmat in focus mount with yellow filter—\$206.25; 16" F:5.5 Hugo Meyer Tele Megor in focus mount, coated—\$199.50; 400 Foot 35 mm magazines for Bell & Howell Eyemo and Professional cameras—\$49.50; Many others available. Write for Eyemo Lens List. All lenses sold on a 15 day trial basis; Satisfaction guaranteed of full refund; 50 years of service. We will buy your surplus lenses and cameras for cash. Tell us what you have. BURKE AND JAMES, INC., 321 So. Wabash Avenue, Chicago 4, Illinois.

MITCHELL CAMERA PORTABLE 3 WHEEL DOLLY. DEBRIE MODEL "L", ASTRO LENSES, 6 MAGAZINES, CASES, 12 VOLT MOTOR, TRIPOD \$875.00. 35MM ADVANCE CINE EDITOR FOR EXAMINING NEGATIVES \$175.00. SINGLE AND DOUBLE HUB 35MM SYNCHRONIZERS FROM \$50.00. LATEST MODELS AURICON RECORDERS. HIGH SPEED 35MM 2000 FRAMES PER SECOND MOTION PICTURE CAMERA, 10 LENSES, AND MICROSCOPE. IMMEDIATE DELIVERY NEW 12" DISC RECORDERS, MICROPHONE, STAND, COMPLETE. WANTED IMMEDIATELY—MITCHELL, BELL & HOWELL, EYEMO, CINE SPECIALS, FILMOS, MAURER CAMERAS. AURICON, MAURER, FAIRCHILD RECORDERS.

CAMERA MART, 70 W. 45TH ST, NEW YORK.

FOR SALE—35mm. Askania Motion Picture Camera with 3 Schneider Xenon lenses and many accessories. Price \$875.00. 8" F:2.3 Astro Pan-Tachar lens in M.P. focusing mount. Price, \$225.00.

CAMERA MART, INC.

1610 N. Cahuenga Blvd., Hollywood 28, Calif. HE-7373

EYEMO Spider Turret with 3 lenses, rebuilt, \$595.00; Depue Optical Reduction Printer, rebuilt, \$2995.00; RCA type double system Recorder with amplification, etc., \$6,150.00; early Mitchell Camera, magazines, lenses, tripod, rebuilt, \$2,450.00; Duplex 35mm. Printer, \$495.00; Moviolas, \$195.00; 2000W Studio Spots, \$67.50; Akeley Newsreel Camera, Gyrotripod, \$695.00; New Bell & Howell Sound Printers, 35mm D, \$2,950.00; BH Geared Tripods, \$69.50. Send for listings. S.O.S. CINEMA SUPPLY CORP., 449 W. 42nd St., New York 18.

## WANTED

MOVIE FILMS WANTED—Original sport films, boxing, wrestling, jui jitsu, fencing, etc., 35mm., 16mm., or 8 mm. Positive or negative, any footage, edited or not. Peerless Sales, Room 904, 1472 Broadway, New York City.

## WANTED TO BUY FOR CASH

## CAMERAS AND ACCESSORIES

MITCHELL, B & H, EYEMO, DEBRIE, AKELEY ALSO LABORATORY AND CUTTING ROOM EQUIPMENT

## CAMERA EQUIPMENT COMPANY

1600 BROADWAY, NEW YORK CITY 19

CABLE: CINEQUIP

WE PAY CASH FOR EVERYTHING PHOTOGRAPHIC. Write us today. Hollywood Camera Exchange, 1600 Cahuenga Blvd., Hollywood.

BASS PAYS CASH for good photo equipment. Want Contax, Leica, 16mm cameras and apparatus . . . 35mm spring-driven cameras. Write full description for generous cash offers. BASS CAMERA CO., 179 W. Madison St., Chicago 2, Illinois.

## WANTED TO BUY FOR CASH

DEBRIE-SUPER-PARVO, new or second hand, with accessories, magazines, tripod, motors, etc. SOUND-RECORDER—Variable area 35mm, with Galvanometer RCA noise reduction shutter, Bell & Howell magazine.

## CINEMATOGRAFIA IMPERIAL LTDA.

Avenida Henrique Valadares, 125 Rio de Janeiro, Brazil

WIRE US COLLECT—We pay more—Laboratory, Studio, or Recording Equipment. S.O.S. CINEMA SUPPLY CORP., 449 W. 42nd St., New York 18.

## MISCELLANEOUS

CAMERA RENTAL (35m/m, 16m/m) R. C. A. sound, color corrected dupes, storage vaults, complete studio facilities. Inquiries invited. BUSINESS FILMS, 1101 North Capitol Street, Washington, D.C.

WE Buy, Sell, Trade Cameras, Projectors, Laboratory and Cutting Room Equipment. 8-16-35mm. We pay highest prices. Carry one of the most diversified stocks in America. Mogull's Camera & Film Exchange, 57 West 48th Street, New York 19, N. Y.

JACK LEPPERT, cinematographer for Television Enterprise "Rivers and Man". Assignments—productions. Color results guaranteed. HE-1394. 6770 1/2 Hollywood Blvd., Hollywood.

## CAMERA & SOUND MEN

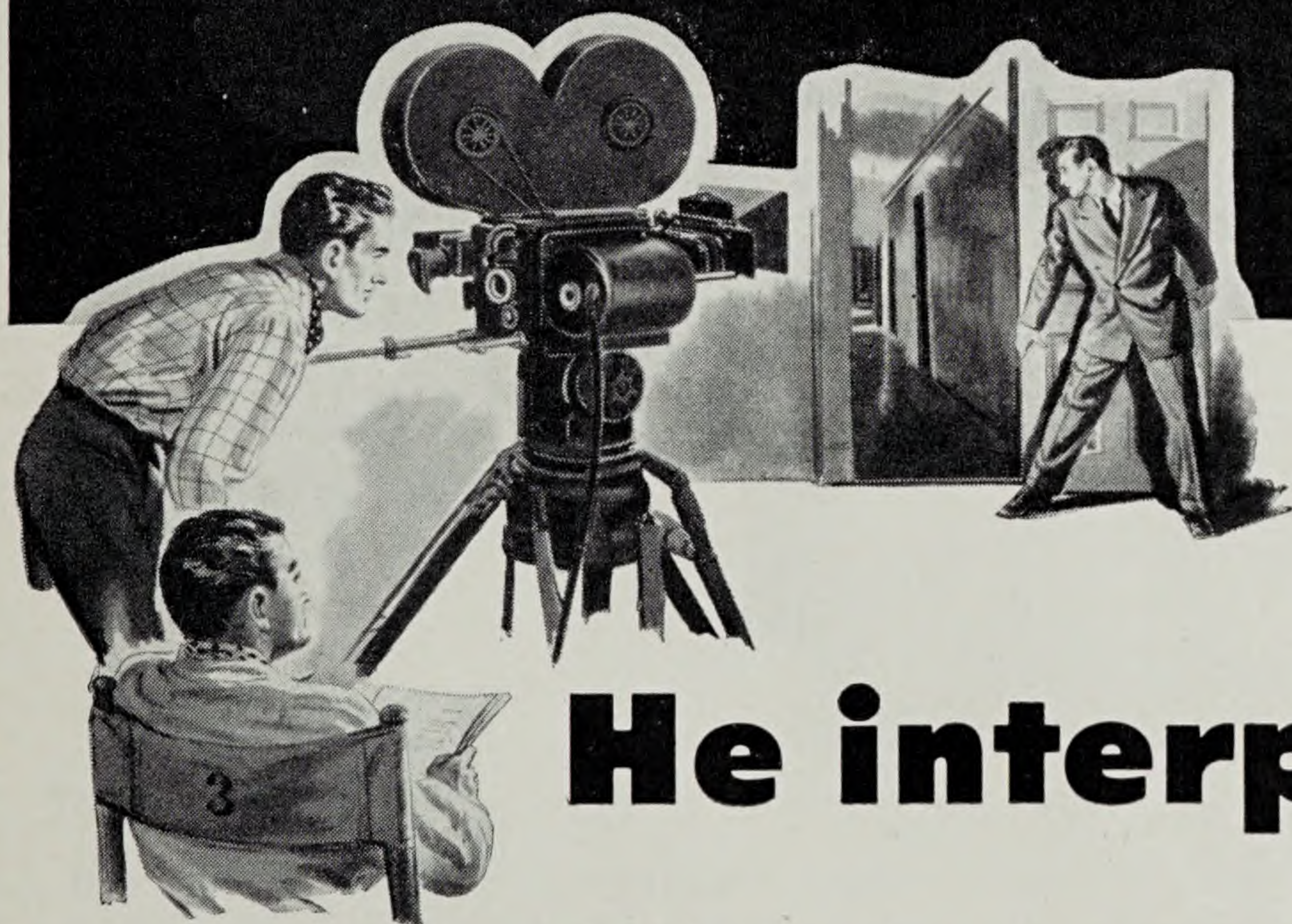
## PRODUCTION UNIT

Camera and sound men, artistically and scientifically skilled, well-equipped MODERN SOUND STUDIO, high-fidelity play-back. Stage set construction.

## ROLAB

Sandy Hook, Connecticut  
90 minutes from New York City  
Telephone: Newton 581





## He interprets with light...

● This scene, from the moment of its conception, had dramatic *possibilities*. But it was the director of photography who made them more than possibilities.

His was the creative skill, the spectacular, interpretive use of light that produced actual drama, vivid, gripping . . . his the perceptive use of photography that made the scene an intense moment of visual reality.

To get the utmost from his special skill, his creative ability, the director of photography naturally wants a superior film, one on which he can depend, one perfectly suited to the conditions and circumstances under which he's working. That's why he so often prefers Eastman Plus-X for general studio and outdoor use . . . and why he turns to Eastman Super-XX for use under adverse lighting conditions.

**EASTMAN KODAK COMPANY**  
ROCHESTER 4, NEW YORK

**J. E. BRULATOUR, INC., DISTRIBUTORS**  
FORT LEE • CHICAGO • HOLLYWOOD

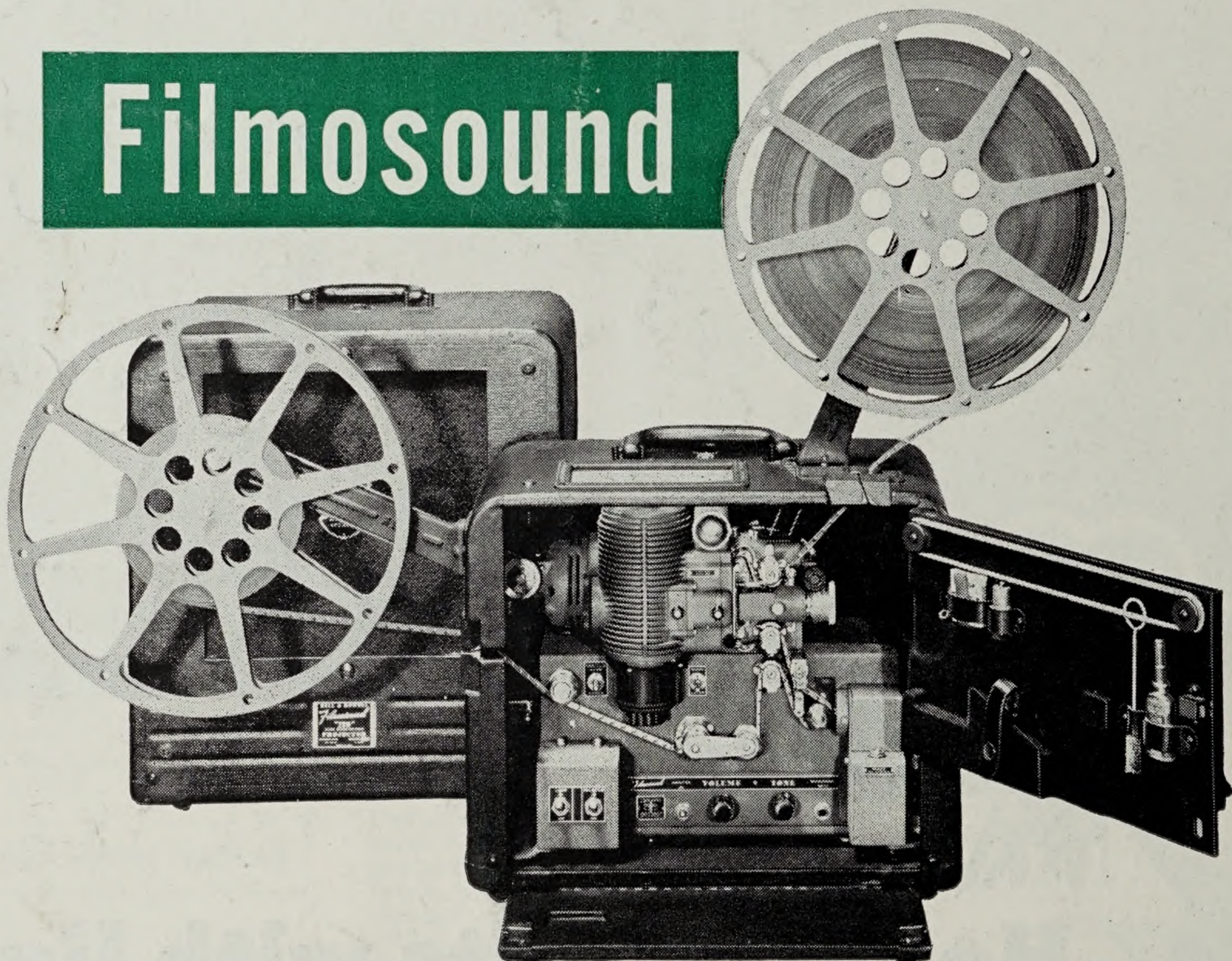




**Invite the world's greatest  
screen stars into your own living room**

**with**

**Filmosound**



**T**he world's greatest actors and musicians—see them and hear them in your own living room at your pleasure!

Filmosound, the 16mm Bell & Howell projector, brings them to you with *sound-on-film* realism never before achieved. Brilliant 1000-watt illumination, plus new coated lens, produces clear, true screen images. At all volume levels, sound is natural and undistorted.

Choose your "home theater" programs from thousands of fine films in Filmosound Library. (You can also show your own 16mm *silent* films.)

Filmosound's exclusive engineering features banish the dan-

gers of film damage. Operation is cooler, quieter, and more dependable than ever before. And Filmosound is *easy* to use.

See your *B&H* dealer now — see Filmosound in action. Or write for illustrated booklet to Bell & Howell Company, 7148 McCormick Road, Chicago 45; New York 20; Hollywood 38; Washington 5, D. C.; London.

#### **THIS HUGE LIBRARY SUPPLIES YOUR FILMS**

*Filmosound Library* has more than 5,000 fine movies you can rent or buy—every type of film to suit your taste. The new catalogs are free to users of movie equipment.



OPTI-ONICS—products combining the sciences of OPTics • electrONics • mechanICS

Precision-Made by

**Bell & Howell**

Since 1907 the Largest Manufacturer of Professional Motion Picture  
Equipment for Hollywood and the World